# The Boston Medical and Surgical Journal

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## Obituary.

### CHARLES FRANCIS WITHINGTON.

BY WALTER P. BOWERS, M.D., BOSTON.

DR. CHARLES FRANCIS WITHINGTON died in Boston, January 7, 1917. He was born in Brookline, August 21, 1852, the son of Otis and Lucy (Jenckes) Withington.

His ancestry was identified with the development of New England life, being to a considerable extent of the Puritan strain, with several marriages into the Pilgrim stock. At least four came on the *Mayflower* on her first voyage, one of whom, John Howland, is spoken of as the "lusty young man" who was rescued from drowning by his agility in grasping a rope when he fell overboard.

Dr. Withington was directly descended from Henry Withington, who was born in England and who came to this country on *The James*, in 1636, with his wife and four children. Henry Withington was the Ruling Elder of the First Church of Dorchester for twenty-nine years. Richard, son of Henry, married a niece of Eliot, "The Apostle to the Indians."

John, a son of Richard, commander of a company in Sir William Phipps' Expedition against Quebec in 1690, was the grandfather of Samuel, a lieutenant in the Revolutionary War. Enos, the son of Samuel, built a house in Brookline, where Otis and his son, Dr. Charles F. Withington, were born.

From this meagre reference to his genealogy, one may appreciate the combination of qualities developed through generations of men and women who founded and developed Massachusetts ideals and achievements.

After a boyhood spent in Brookline, Dr. Withington entered Harvard College in 1870, graduating four years later with the degree A.B. *cum laude*, ranking fourth in his class. His work secured a detur and second year honors in the classics, and he read a commencement part on graduating. While in college he was a member of the Pi Eta and Phi Beta Kappa societies. Whenever it was possible, the joint festivities of the societies and the commencement exercises always drew him to Cambridge.

After leaving college he taught for one year in the Brookline High School, and the two succeeding years in the Roxbury Latin School, becoming a trustee of the latter a few years later, serving as secretary of this board for twenty-five years.

In 1877, he entered the Harvard Medical School, and became a member of the Boylston Medical Society, serving as its secretary. He read a prize essay before this Society, under the title of "The Pupil as a Therapeutic Guide." He received the degree of M.D. in 1891, having served as medical interne in the Boston City Hospital, and the following year was assistant to the superintendent. He began independent practice in Roxbury immediately after leaving the Hospital, continuing there until 1902, when he moved to 35 Bay State Road, where he worked until incapacitated.

Although deeply interested in, and loyal to his patients, Dr. Withington enjoyed the study of the deeper problems of his profession, and took keen interest in the critical review of medical literature.

Immediately after entering upon practice, he joined the editorial staff of the BOSTON MEDICAL AND SURGICAL JOURNAL. His reviews, editorials and other contributions were not only logical and scientific, but permeated with an individuality which lent an added charm. His more notable contributions were entitled, "Consanguineous Marriages" (Transactions Mass. Medical Society, 1885), "The Relations of Hospitals to Medical Education" (Boylston Prize Essay), "An Inquiry into the Transmission of Contagious Diseases through the Medium of Rags" (Report Mass. Board of Health, 1887) and several articles in Wood's Handbook of Medical Sciences (1886-8).

In 1891, desiring to study bacteriology, he went abroad, and later being joined by his family, the winter of 1892-3 was spent largely in Berlin, where he matriculated in the University. The following year he was made instructor in clinical medicine at the Harvard Medical School, retaining this office until he resigned in 1905. In 1912 he was appointed lecturer in the Graduate School of Medicine.

Early in his practice, he served as physician to the Out-Patient Department at the City Hospital, securing the appointment on the Visiting Staff in 1892, which he held until 1915, when he was appointed Consulting Physician.

An interesting fact may be noted in calling attention to the first use of diphtheria antitoxin in the Boston City Hospital, which was in his service, on December 12, 1894. (See BOSTON MEDICAL AND SURGICAL JOURNAL, cxxxii, No. 11, pp. 249-260).

In 1898 he was elected a member of the Association of American Physicians. Several of

Charles F. Withington

his contributions appear in the transactions of this Society.

These honors and activities, as here outlined, would seem to have made up a life of unusual usefulness, but through all these years there was continuous devotion to an organization in which Dr. Withington found opportunity for service which led eventually to his being elected as President of The Massachusetts Medical Society. Beginning as a Censor of the Norfolk District Society in 1892 he, together with his associates, formulated a plan for the uniform examination of candidates for Fellowship, becoming Supervisor under this scheme, which was adopted in 1894. Later, he was chosen Councillor from the Norfolk District in 1896-97-98, and Vice-President of this district in 1900-01. He was elected President of this same district in 1902. This honor he could not accept because it came just as he was about to remove his home to Boston.

From 1908 to 1914, Dr. Withington served the State Society as member of the Committee on State and National Legislation, being the secretary and executive officer for several years. His associates will always remember the valuable services rendered the society and the state, for he carefully and diligently studied all matters of a medical and public health nature. He was quick to detect merit or error in bills presented, and sacrificed valuable time in attending hearings and disseminating information. Although frequently obliged to antagonize the efforts of those opposed to public health and medical interests, he had the rare ability of presenting facts in a logical manner, free from personal bias. He always secured a respectful hearing. He represented the State Society in the National Legislative Council of the American Medical Association in Chicago in 1912-13-14, where he reported the conditions in Massachusetts.

All of these activities led to the recognition of the valuable services rendered the profession and the state, and his election to the presidency of the Massachusetts Medical Society in 1914 was most fitting. Several unfinished plans of the preceding year fell to him to put into effect. His management of the affiliation of the BOSTON MEDICAL AND SURGICAL JOURNAL with the Society, and other questions concerning which there were pronounced differences of opinion, demonstrated executive ability and diplomacy which secured effective and harmonious action. Although conscious of a developing infirmity, he threw himself into the arduous and perplexing problems of this position and carried the Society through two years of most constructive work. To a few intimate friends, it was clearly apparent that he was working beyond his strength, but he never faltered, and carried his administration to a successful end.

Dr. Withington was not only a leader in medicine but he also upheld the ideals and traditions of New England, for he was ready to study the sociologic questions of the day, and made his life exemplify the highest type of human culture.

On September 20, 1893, he married Georgianna Bowen. Of this union there were born four sons and a daughter. One son died in infancy.

It is interesting to note that the father's life has inspired one son, Paul Richmond, with the desire to practise medicine, and also to state that this son occupied the position of secretary of the Boylston Medical Society thirty-five years after his father was elected to the same position.

To those who knew Dr. Withington well, this brief recital of his life and work seems barren and incomplete, for it does not adequately portray the high-minded, finished gentleman, the warm-hearted friend, the devoted public-spirited servant, and the courageous spirit of a man who found in life the opportunity for service which was grandly met.

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## Original Articles.

# THREE TYPES OF TUBERCULOSIS.

BY MARY E. LAPHAM, M.D., HIGHLANDS, N.C.,
*Highlands Camp Sanatorium.*

TUBERCULOUS processes within the thorax may develop predominantly upon the functional surfaces of the air passages or follow along the blood and lymph channels through the interstitial tissues of the lungs, or remain chiefly confined to the bronchial glands.

Those developing chiefly upon the functional surfaces of the air passages tend almost of necessity to manifest themselves by disturbances of function such as increased secretion, and by the physical signs of bronchitis and broncho-lobular pneumonias, tuberculosis of the functional surfaces, or parenchymatous tuberculosis, causes bronchitis and broncho-lobular pneumonias with the fundamental characteristic of inflammatory reaction to irritation: the hyperemia leads to congestion, increased secretory activity, exudation, desquamation, caseation, cough and expectoration. The absorption of toxins is almost unavoidable, and therefore increased temperature and frequency of pulse rate are characteristic consequences. The physical signs are those of wet, infiltrated tissues with exaggeration and roughening of breath sounds. wet râles, and dulness. Because the physical signs and the symptoms of parenchymatous tuberculosis are in accord with each other, the diagnosis is easy. The prognosis often remains uncertain until we determine the effect of rest upon the hyperemic pulmonary vessels. If relief from strain does not stop the leakage from over-distended vessels and the area of wet râles, and dulness increases in extent, we are afraid that we cannot stop this extension without some artificial help; and if three or four months of careful nursing in bed in the open air does not succeed in arresting it, it may seem necessary to compress the lung in order to protect the patient from pneumonic extensions or "galloping consumption."

On the other hand, just taking the strain from the pulmonary circulation by thorough rest sometimes accomplishes spectacular results just by stopping the leakage and drying out the tissues. In many cases all that is necessary is to restore the balance of circulation in the pulmonary vessels by taking away the extra strain they could not stand and through the avoidance of all physical efforts so to lessen the amount of blood forced through them that stasis, congestion and leakage are prevented and the lung dries out in the most gratifying manner. In these cases it is possible that secondary edematous infiltrations are largely responsible for the condition of the lungs and that we do not always make a distinction between the secondary edematous areas and primary tuberculous consolidations because the physical signs are very much the same. In a case with dulness, wet râles and exaggerated, roughened breath sounds over the whole of one lung and down to the second rib in the other, the extent of primary tuberculous consolidations, as compared with their secondary edematous consequences, will make a good deal of difference with our prognosis. If the bad lung is full of "disintegrating foci" and there are inflammatory processes down to the second rib in the other lung the prognosis for this third-stage case is bad and it is more than doubtful if the most complete rest will dry up these areas. But, if a large part of the dulness and wet areas is due to secondary edemas, and rest stops the leakage and dries out the tissues, then the prognosis is quite another affair. As week after week the wet râles and the dulness disappear and the line of dryness climbs higher and higher up, we find that just so much of the lung must have been edematous because nothing but edemas could disappear so fast. Finally, when the dulness and wet râles no longer disappear over new areas and we find that they remain fixed, then we infer that the secondary edemas have been dried up and the remaining portion of the lung represents the primary tuberculous consolidations. If we wait until this knowledge is gained, shall we classify the case as one of complete involvement of one lung and apex of the other or as one of primary tuberculous consolidation throughout the extent remaining unaffected by rest, and of secondary edematous infiltrations through those parts so rapidly dried out? A good many remarkable recoveries of so-called third-stage cases might be explained by this classification and it may be more accurate in the future to base our classification and statistics upon the condition of the lungs after the effects of rest have been obtained instead of before. The recognition of edematous areas might also influence the prognosis and treatment of certain cases. A case was sent to us in a seemingly desperate condition; temperature 103, pulse 130, very weak and irregular, respirations 30, and persistent profuse expectoration of frothy sputum; a good deal of sweating, prostration and extreme dyspnea, wet râles, dulness and exaggerated roughened breath sounds over all the left lung and down to the second rib in the right. The referring physician regarded the case as advanced, hopeless, and belonging to the third stage. With relief from strain, the pulmonary circulation dried out, the edematous, frothy expectoration ceased and week by week the areas of dulness and wet râles disappeared. In three months the maximum temperature was 99.3, the pulse 96, respirations 20, and dyspnea and sweating gone; appetite, strength and weight rapidly improving. The upper lobe of the left lung marked the limit of improvement. When its boundaries were reached the spectacular weekly progress ceased and thenceforth there were few changes in the lungs, but the clinical gain continued to be most gratifying. In all probability, this was a case of primary tuberculous consolidation of the upper lobe of the left lung, with secondary edematous infiltration of the lower lobe of the left, and apex of the right lung. The high temperature, increased frequency of pulse rate and respirations, sweating, dyspnea and frothy, persistent expectoration may all have been caused by the absorption of toxins from wet, boggy tissues, and as these edemas were absorbed away the toxemia lessened. After six months of drying out, the recovery was so complete that the case might easily have been regarded as "arrested," since there were no clinical signs of activity. This would be a great mistake, for the stoppage of leakage is a very different matter from the restoration of structural integrity to which it is a necessary preliminary. The relief from over-distention of damaged pulmonary vessels is the first requisite, the absorption of edemas the second; but when this has been accomplished nothing permanent has been gained, nothing which would not be lost almost at once by over-strain and the return of distention. So far the ground has been drained and cleared and gotten ready, now we are just beginning to get in the proper condition for recovery. Now we have really to recover by restoring the structural integrity of the tissues, which means a year or more of careful living and prevention of strain. The prognosis in such a case is excellent, provided you can convince the patient of the necessity for time to repair firmly the destruction of years of insidious development of tuberculous processes, and provided you can make him understand that absence of symptoms has nothing to do with absence of danger. Freed from temperature, cough and expectoration, with appetite, weight and strength restored, he naturally compares such a condition with recovery from typhoid and other acute diseases and argues that if he feels well and there are no symptoms of illness then he must be well. He is prone to venture upon this and that forbidden indulgence and when no temperature or other symptoms supervene he says triumphantly that this has not hurt him. This may be true, but it is also true that during all the years of unsuspected insidious extensions of tuberculous processes through the lungs, there were no symptoms to warn, and that just as he blithely trod the downward path to gloom in those care-free days, so now he may trifle with his future and be none the wiser until it is too late and his opportunity is gone. The prognosis depends more upon the intelligence, judgment and self-control of the patient than upon the extent of tuberculous processes in the lungs. There are many reasons for these edematous infiltrations. Turban has emphasized the tendency of tuberculous toxins to increase the permeability and to overdistend the pulmonary vessels, especially in the regions nearest the production of toxins. This is illustrated in the local reaction to subcutaneous injections of tuberculin as well as by the focal reaction in the lungs. The insufficiency of the cardiac muscles and lacking *vis a tergo* may have something to do with stasis and congestion, just as in other pulmonary edemas, and the blockage caused by tuberculous consolidations may be another factor. As the blood comes up to these obstructed areas through which it cannot pass, it is turned back and thus a double strain is caused which is not relieved by abundant anastomoses as in other organs. Whatever the cause, the primary factor in recovery is relief from physical effort and strain and the restoration of the sufficiency of the circulation through the damaged areas in the lungs for a sufficient length of time to secure their permanent integrity.

The fundamental characteristics of parenchymatous tuberculosis are hyperemia, leakage, and the inflammatory response to an irritant shown by bronchitis and pneumonias, with their physical signs of exaggerated, roughened breath sounds, wet râles and dulness, which conditions are easily diagnosed. Of quite a different nature are those tuberculous processes entering the lung from the bronchial glands and following the blood vessels and lymphatics along the peribronchial sheaths to their ultimate distribution to the terminal lobuli and alveolar circulation. Beginning at the hilum and creeping through the lungs, these interstitial extensions do not provoke inflammatory reactions. Insidiously creeping from point to point they are like the sclerosing processes of connective tissue infiltrations of other organs and differ very little from the interstitial sclerosis of the kidneys, liver, spleen and pancreas and end similarly in fibroid suppression of functional activities. Just as the interstitial sclerosis of the granular, contracted kidney or of the cirrhotic liver makes no sign until functional insufficiency develops, so the fibrosis or interstitial sclerosis of the lung may develop for years without causing any impairment of health so long as the processes remain purely interstitial and there is functional sufficiency.

In this interstitial sclerosis of the lung anemia instead of hyperemia prevails. Instead of being solidly enlarged like the parenchymatous inflammations of liver and kidneys and lungs and packed with caseous and other decomposing materials, the sclerosed lung is dry, shrunken and contracted like the cirrhosed liver and kidneys. The functional portions are not stimulated but suppressed. There is no increased secretion to remove by coughing, no decomposing products to cause toxemia. It is a withering, drying shrinking disappearance of the breathing spaces situated at the end of the branches of the bronchial tree caused by the overgrowth of the scale-like processes creeping out along the bronchi. The larger bronchial branches have rigid walls which resist the pressure of the infiltrations, but as soon as the smaller branches are reached, whose walls are insufficiently protected from pressure, they are more or less compressed and stenosed. At first the stenosis is partial and then the air is apt to enter the alveoli more easily than it can escape, because the stenosis is relieved when the chest wall is pulled out, and it returns as the chest wall falls back, making it difficult for the air to escape, and establishing a tendency for it to accumulate in the terminal lobuli. As the stenosis becomes complete the air cannot pass on to the infundibuli, the lobuli collapse and areas of atelectasis develop. In chronic fibroid phthisis the breathing spaces are gradually obliterated in this way until the leaves are all stripped off and only the branches remain. The loss of elasticity, the inability to stretch, the inability to inflate the infundibuli, cause the flattening and lagging and retraction of sclerosis of the lung.

What physical signs first suggest this gradual extinction of breathing spaces? Not dulness, because the air content of the larger bronchi is well preserved, and in incomplete stenosis of the bronchi it is even increased. Not wet râles, because an anemic dryness prevails. Not harsh, exaggerated breath sounds, because the functional surfaces are smooth and there is nothing to cause roughness and exaggeration. On the contrary, the breath sounds are lessened in vigor, partly on account of the stenosis and partly on account of the emphysema, and thus suppression of breath sounds and prolongation of expiration are the first indications that the air does not enter or leave the lung properly because the bronchi are stenosed. When some of the smaller bronchi are obstructed more than others their terminal lobuli may not all fill with equal rapidity. As one infundibulum after another expands, the breath sounds are uneven and interrupted or cog-wheel breathing develops. As one lobule after another collapses, the atelectatic areas furnish enough consolidation to cause increased tactile fremitus.

The diagnosis of interstitial sclerosis of the lungs is not made like the diagnosis of parenchymatous sclerosis from dulness, because the air content of the larger bronchi prevails over the atelectasis of the collapsed areas: nor by wet râles, for there are no edemas and the tissues are dry; nor by roughened breath sounds, because the air passes over unaltered functional surfaces; but by the suppression and irregularity of the breath sounds caused by the inability of the air properly to enter and properly to expand the alveoli and properly escape. Therefore, suppressed, uneven inspiration and prolonged expiration are the characteristics of interstitial sclerosis until secondary complications develop, when the parenchymatous signs of broncho-lobular pneumonias appear.

The prognosis of fibroid phthisis is good, provided the extensions of the tuberculous processes can be stopped. As a rule, during years of development there is little absorption of toxins from the dry tissues and consequently very little toxemia. Absence of symptoms and absence of physical signs which are recognized as indicating tuberculous changes in the lungs are the essential characteristics of these years of gradual extension of interstitial sclerosis of the lungs. Because of this absence of symptoms, we are often at a loss to know how to interpret x-ray and physical findings when we make the diagnosis of peribronchial infiltration of the lungs, because without symptoms we have no proof that the processes undoubtedly present are at all active or ever will be. Without symptoms we cannot say that tuberculous processes in the lungs are clinically active and so every day it is becoming a much simpler and easier matter to detect them than to establish their significance after we find them.

We are constantly proving that the world is full of working people with the physical and x-ray proofs of tuberculous processes in their lungs and little or no impairment of health. While in interstitial sclerosis of the lungs the prognosis is difficult, it may be well to remember that all advanced and hopeless cases were once in the stage of clinical inactivity with no symptoms to inform us of their effects upon the health, so that the question, "Will this case progress further?" cannot be answered offhand with accuracy. Slight rises of temperature and neurasthenic and other abnormalities may not seem to warrant the price of a tuberculous régime, but we may some day believe that one of the first and most constant effects of tuberculous toxemia is depression of the endocrine system, which may be regarded as a specific symptom as much in need of correction as any other specific manifestation of tuberculous processes. So long as adrenal and other sympathetic symptoms persist, we cannot say that tuberculous processes are "clinically inactive" but, on the contrary, we will infer from "an unstable heat center" and "thyroid perversions" and "neurasthenia" that there must be some underlying cause and seek it in the production of tuberculous toxins. Endocrinal insufficiency may come to be as specific a manifestation of tuberculosis of an interstitial nature as cough, loss of weight, temperature, sweating, etc., are manifestations of tuberculosis of a parenchymatous nature.

While fibroid phthisis may persist for years and the patient finally die of something else, there is always the possibility of necrosis, of erosion into the air passages, with consequent bronchitis and broncho-lobular pneumonias, when a mixed type develops, as caseo-fibroid or fibro-caseous pneumonias, and the difficulty of recovery increases. There is also the danger that blood vessels may be eroded, with rapid dissemination of the tuberculous virus and generalized or acute miliary tuberculosis or the typho-bacillemia of Landouzy, or rapid extensions of pneumonic processes throughout the lungs, as galloping consumption.

Beginning in some cases almost as soon as life itself, tuberculous processes in the bronchial glands may persist indefinitely without causing the slightest impairment of health or any symptoms of any kind, or they may declare themselves suddenly with startling and fatal brutality, or induce functional abnormalities usually regarded as primarily originating in the system manifesting them, or declare themselves by specific symptoms.

Death is usually caused by pressure upon or perforation of important structures, which, as a rule, occurs in childhood or rather early in adult life. Cases have been reported of steady development throughout life with no recognizable symptoms, and death in the last decades from occlusion of the superior vena cava or pressure upon the trachea and bronchi. It is possible that there are cases of "spasmodic asthma," intractable to operations and vaccines, which are caused by partial stenosis of the trachea and bronchi from the pressure of enlarged tuberculous bronchial glands. In children sudden death in a few hours from suffocation may be caused by perforation into the trachea or main bronchi and, as a rule, the erosion is not preceded by symptoms. The children are usually well and the condition is entirely unsuspected.

Tuberculous processes in the bronchial glands do not produce symptoms unless adjacent structures are sufficiently affected by the pressure or there is a sufficient absorption of toxins. Pressure upon the blood vessels and nerves, the trachea, bronchi and esophagus, is betrayed by characteristic symptoms. In the case of the superior vena cava there is interference with the return of the blood from the head to the heart and with the pulmonary artery the blood does not properly circulate through the smaller pulmonary branches of the pulmonary artery. Just behind the sterno-clavicular notch is a group of bronchial glands called the substernal glands, which are very commonly enlarged. Usually there is no cough, but the pressure upon the superior vena cava and the innominate and the interference with the return flow of the blood is shown by the thick, purplish blotchy complexion, cyanotic edemas of the palpebral sacs and the lips, swelling along the side of the nose, dilatation of the nasal and facial veins, pulsation of the veins in the neck, unequal radial pulses, dilated networks of veins across the chest and abdomen, and tendency to exaggeration of facial cyanosis and edemas in consequence of exercise and menstruation or even indigestion. A young woman came to us with a swelling as large as a walnut, just over the inner third of the clavicle. The swelling was soft, doughy, and suggested an aneurysm. It was painful, throbbed a good deal and there was considerable dyspnea. She had been feeling "run down" and so walked and climbed much more than she was used to, hoping to get strong. There were no abnormal signs in the lungs, d'Espine was positive to fifth dorsal, and the x-ray showed enlarged bronchial glands. As her general health was good and there were no signs of tuberculosis, she was not inclined to give up teaching in order to reduce the hyperemia of the sternal glands, but after a few months the toxic manifestations were sufficiently severe to enforce a tuberculous régime.

Another case of enlarged sub-sternal glands began with slight hemorrhages; at first, just a mouthful, but gradually increasing in severity for months in spite of faithful treatment by a specialist who hoped the hemorrhages might be coming from the throat, as there was nothing to account for them in the lungs. There was no cough and no expectoration, and nothing but a sense of fullness and discomfort around and behind the manubrium. These "occult hemorrhages" were distinctly associated with menstruation, at which time the sensations of fullness and discomfort were markedly aggravated probably by the increased hyperemia of the sub-sternal glands and consequent increased pressure and stasis in the superior vena cava. Increased hyperemia of tuberculous bronchial glands and consequent exaggeration of their symptoms are characteristic features of menstruation.

Pressure upon the pulmonary artery causes many of the typical consequences of pulmonary stenosis from other causes: dilatation of the right heart, clubbed fingers, bloody sputum, bronchiectases etc. The pulmonary branches in the lungs are apt to be insufficiently supplied with blood so that there is a tendency to interstitial connective tissue infiltrations and anemic sclerosis of the lungs. Pressure upon the trachea and bronchi may cause coughing varying in intensity from a slight hacking or hemming or "clearing of the throat" to attacks of paroxysmal coughing with strident expiratory dyspnea, often associated with vomiting. Complete stenosis of trachea and bronchi causes death; incomplete stenosis is associated with chronic bronchitis, asthma, and emphysema. Irritation of the phrenic causes many of the symptoms of subdiaphragmatic pleurisy. There is pain in the region of its cervical origin and the branches communicating with it; pain in the neck, shoulder, along the trapezius, down the arm, in the spine etc. Pain and soreness are also felt along the main line of descent and especially along the insertion of the diaphragm. It is possible that many pains supposed to be caused by pleurisy are really a neuritis of the phrenic. The relief afforded by adrenalin suggests this and also may explain the relief in spasmodic asthma caused by hyperemia of tuberculous bronchial glands. Adrenalin seems to have a decided effect upon this hyperemia in many cases, especially during menstruation.

Much of the abdominal distress common to diaphragmatic pleurisy is equally common to tuberculosis of the bronchial glands, and possibly for the same reason, irritation of the phrenic nerve. The pains in the epigastrium, right hypochondrium and right iliac fossa are as typical for one condition as the other, and the removal of a perfectly normal appendix has been performed for the relief of pain in both conditions.

Pressure upon the sympathetic causes bulging and protrusion of the eyeballs, even exophthalmos, unequal pupils, unequal flushing of the face. It has been said that irritation of the sympathetic caused over-stimulation of the gastric glands and all the distress of hyperchlorhydria. This assumption has seemed to be verified by the reduction of the acidity when bromides are given, but it is possible that the lessening of the gastric irritability is as much due to lessening the irritability of the vagus as the sympathetic. We have proof positive that vagus irritability can cause the hyperchlorhydria and the typical clinical picture of gastric ulcer, because when enlarged bronchial glands press upon and erode the esophagus, fibers of the vagus are involved and in many of the cases reported the first and only symptoms for some time were those of acidity and gastric ulcer, which were followed later on by voice changes and pain in the larynx amounting even to laryngospasm. It is possible that irritation of the vagus is also responsible for the frequent association of chorea and spasmophilia in the histories of tuberculosis of the lungs and that this association has not been suspected because there were no evidences of structural changes in the lungs afforded by physical signs. It may be that the exclusion of tuberculous processes in the bronchial glands will be as important as the exclusion of those in the lungs.

There are two extreme gastro-intestinal conditions typically associated with tuberculosis of the bronchial glands, but we cannot say whether the one or the other is always due to pressure upon either the sympathetic or vagus or whether the tuberculous toxemia directly affects the gastro-intestinal glands or indirectly affects them through the vagus and sympathetic and vaso-motor insufficiency. The excess of acid sometimes equals an acidosis and the anacidity may be equally extreme. The excessive acidity, hunger, inability to absorb food, wasting, etc., are comparable to diabetes: the anorexia, anacidity, obstinate constipation are comparable to all degrees of malnutrition, marasmus, and atrophy. It has been suggested that these extremes are primarily due to vaso-motor insufficiency with sluggish circulation, stasis and hyperemia of the gastro-intestinal glands causing hyperacidity and increased function at first and loss of secretory function later on.

Pressure upon the vagus causes transient alterations in the quality and quantity of the voice dependent upon the degree of hyperemia in the bronchial glands and its duration. Thus, in consequence of excessive physical or other strain, and quite independent of excessive or wrong use of the voice, and during menstruation, the voice may change its character or even be lost. In many cases hoarseness and weakness of the voice come on towards night when there is increased hyperemia of the bronchial glands from over-physical fatigue. The sensation of something pressing in the throat, as if there were a foreign body there, has demanded an operation for its relief, and nothing but enlarged glands pressing upon the esophagus and causing difficulty in swallowing could be found.

Tuberculous toxemia from bronchial glands is probably far more common than any one has any idea of. In cases where there is a slow, persistent absorption of toxins the effects may be compared with the constant slow absorption of sewer gas. It is easy to understand how this fundamental toxemia may not have any specific consequences, so that we can say that this must be a case of tuberculous poisoning, but rather undermines the functional efficiency of all the systems so that the manifestations are regarded as primary systemic aberrations of function. From this point of view, we see how the endocrine system, the vaso-motor and cardiac system, the gastro-intestinal, hematopoietic, nervous and genital systems may all coincidentally or independently be at fault in accordance with their degree of resistance to tuberculous toxins. Any systemic abnormality of function may be due to tuberculous toxins, although there may be no tuberculous stigmata to suggest the relationship, and we exclude all probability by not finding any proof of tuberculosis of the lungs. It has even been suggested that certain systems are usually first and primarily affected and that the other systemic derangements are secondary consequences. The first effects of tuberculous toxins are said to be felt in the endocrine system, causing a fall of blood pressure and insufficiency of vaso-motor tone. The next consequences are said to be felt in the hemato-poietic and gastro-intestinal systems. The sluggish circulation in the bone marrow injures the production of red and white cells so that anemia and chlorosis result; the sluggish circulation in the gastro-intestinal tract results in over-stimulation followed by loss of secretory function; disorders of nutrition and development result and all kinds of nervous and pelvic aberrations are possible. Inhibition of development of the genitalia is common with menstrual abnormalities of all sorts and conditions which are usually regarded as primary. Relaxed, sluggish circulation in the skin is said to cause an overgrowth of lanugo, a tendency to exudation is seen in the wet, clammy hands and feet, chilblains, sweats, erythemas, especially erythema nodosum, eczemas, tuberculides, tinea versicolor, scrofulides, and the exudative diathesis of Czerny. Insufficiency of the cardiac muscle has led to the diagnosis of heart failure. Heisler and Scholl report a case of threatened death from heart failure with no suggestions of tuberculosis of the bronchial glands which was not thought of until the x-ray plates were seen. Adrenal asystole has been well described with reports of cases with a tuberculous etiology. The complications of vaso-motor, cardiac, endocrinal, hemato-poieous causes and effects make up an inextricable confusion of clinical types which are really logically connected when we follow the thread of tuberculous etiology. The sum total of the disturbances induced by the absorption of tuberculous toxins during childhood should not be regarded, as it usually is, as the inevitable consequence of an inherited anlage against which we can do very little, but as an indication of the necessity of stopping this absorption and getting rid of the tuberculous processes in the bronchial glands which we do not suspect because they are not revealed by an examination of the lungs. Stiller's picture of asthenia universalis represents the inhibition of development and the disturbances in the various systems caused by the tuberculous toxemia which is too often regarded as the expression of a "lymphatic temperament" or an "inherited, congenital predisposition" which is difficult to overcome because the constitution of the child was wrong at the start. The anaphylactic effect upon the mucous membranes, shown by the coryzas and bronchitides, suggests a comparison with the feeble, weazened, little old baby poisoned fundamentally by syphilis. These babies and children need specific treatment for tuberculosis just as the others need it for syphilis but, unfortunately, because we find nothing in the lungs we say there is no tuberculosis. If the day ever comes when we believe that tuberculosis of the lungs is a possibility which must be considered for every child, and that it is due to some factors permitting its development which we cannot guard against because of our ignorance, then the real prevention of tuberculosis will consist in watching the child and discovering the earliest possible beginning of this development. It begins to seem as if tuberculosis of the lungs was secondary to that of the bronchial glands and that our diagnosis must endeavor to determine the presence of danger in the bronchial glands before it gets into the lungs. This can best be done in the schools by the periodical examination of all children, of each and every child, regardless of good health and the apparent necessity for such an examination. How many hours through the year are given to tuition? Could we not give two hours a year to the best known method for the detection of tuberculous processes in time to protect the future wage-earner?

Before we can understand the subject of tuberculosis of the lungs we must know when it begins and why and how. Today our ignorance of these three facts is complete. We have been studying only its later stages. We must learn to unravel the complicated confusion caused by the inextricable mingling of cause and effect of systemic depressions and to trace throughout its labyrinthine developments the results of tuberculous toxemia, which we are now treating as primary diseases. Since tuberculosis of the bronchial glands begins in the first days of infancy, let us begin our study of tuberculosis with all the infants coming under our care and, as Combe does, test each one for evidence of the presence of tubercle bacilli within its body and the production of allergie, of sensitization to tubercle toxins. The Moro or the Mantoux, which Combe prefers, could easily be made every month and the records kept. In this way we should learn whether sensitization to tubercle bacilli is the result of exposure and bad environment or whether there is reason to suspect that tubercle bacilli are as constant residents as colon bacilli and therefore the development of tuberculous processes is subject to the same laws as the development of morbid processes by colon or any other bacilli habitually resident. With practically all children sensitized to tubercle bacilli by the time they reach maturity, and only a very small percentage developing tuberculosis, it would seem as if the practical prevention of the disease might consist in detecting the earliest stages of development rather than in endeavoring to content ourselves with efforts to prevent the entrance of tubercle bacilli into their bodies, which is probably an impossible task. In Australia the death rate has been astonishingly reduced, but even in this most thorough and best organized effort to exterminate tuberculosis that has ever been made the results are temporary and concern only the individual victims. It is more than probable that the supply of victims will be furnished annually, for this report says that the number of cases has not been reduced, and that is especially true of children. If we could devote two hours a year to each pupil in the public schools, we might amass enough information to place our comprehension of tuberculosis upon quite another basis. We are looking after the abnormal children, but that is not enough. We should carefully study the well children in order to prevent their becoming abnormal and in order to detect every case of beginning development of tuberculous processes, and arrest them. An open-air school, a little extra feeding, a little rest and a little looking after in the home, and the dread disaster of the future is averted. The first community to reduce the number of tuberculosis cases will do much to solve the problem for all the world. As yet only the death rate has been reduced and the number of cases goes on increasing and especially among children. The pediatrists and orthopedists need to know the relation of secondary extensions of tuberculous morbidities from the bronchial glands into their special fields of nutrition and joint deformities. It is possible that the whole subject of tuberculous deformities is secondary to tuberculosis of the bronchial glands.

## DEFECTIVES IN OUR PRISONS.[*]

By A. Warren Stearns, M.D., Boston,

*Out-Patient Physician, Psychopathic Hospital, Boston.*

The title is used so broadly that, lest the writer be accused of infringing on aspects of the field not his own, a word of explanation will be given. It is obvious, that if one wishes to study medicine, the hospital is the place for such study; and if psychiatry is to be studied, the state hospital is the proper place. So, to be especially interested in the problem of the criminal, implies an interest in the broader social problems of crime, and psychiatry itself is no longer confining its efforts to inmates of hospitals, but is now working on the social problems of the insane.

As a physician I believe I can contribute two things toward the solution of the penal problem: First, a method of study; and secondly, certain facts which have been obtained by using the method of individual study.

As to method: It is hardly fair to claim for medicine the exclusive title to the method of treatment depending upon diagnosis, but it must be admitted that doctors have developed and used this to a greater extent than most. If one goes back a hundred years and follows the sick man to the doctor, he finds two remedies are offered, regardless of the pathological condition existing, namely, purging and bleeding. This is exactly analogous to the modern treatment of the criminal. Regardless of the diagnosis, the treatment is fine or jail.

Investigation into penology in the past has dealt with crime, and we find elaborate tables giving the name of the crime, the season of the year, the name of the article stolen, etc., but these figures have had little or nothing to do with diagnosis as far as the individual is concerned. Treatment has had to do largely with the possible effect upon society.

[*] Read at a conference of the Prison Association of Rhode Island, in Providence, on Jan. 13, 1917.

[*] Being Contribution of the Mass. Commission on Mental Disease, whole number 174 (1917.8). The previous contribution (1917.7) was by Doris M. Holmes, entitled "An Analysis of Two Hundred Cases of Delinquency."

At the present time, if a man with a headache goes to a hospital, he is not given morphine to dull his sensibility to pain, but the eyes, the stomach, and the urine are examined, and a cause for the headache is sought. In other words, a diagnosis is made, and then, and not until then, is treatment administered. It is not enough to know the cause of headache in general and administer treatment, but we must know the cause of this particular headache. We are familiar with the wonderful progress made in medicine since this method has become universal. It seems certain that equally good results will come from the application of this method to the criminal class.

It must be borne in mind, of course, that the diagnosis may not be strictly medical; it may be social; it *must always be personal*. This method has been tried out already and a few of the results will show its value, though but a beginning has been made.

It may be made clear that the word *criminal* is not definitive. To say that a man is a criminal in no way describes him; it merely signifies that position he holds in society in a most vague way. It does not even give us a clue to his personal morality or character, as oftentimes what seem to be the real rights of the individual must be limited for the good of society, as in automobile legislation. So, though older studies of crime have given society some aid, they are of no value if the treatment of the individual is to be considered.

There has existed for ages a belief that, though any one of us may commit a crime, there is a group or special type of individual who is prone to delinquency. Lombroso, perhaps, first emphasized this. It was his misfortune that psychiatry was so little advanced in his time that he was unable to see the sameness of his born criminal and our imbecile. *Now*, when we begin the study of an individual criminal, we immediately get at a more fundamental idea of his nature. For instance, under the older classification, we find crime divided into such groups as

Against the person,
Against property, and
Against public order.

This gives us no insight as to the individual or his needs.

After studying a group of felons at the Charlestown State Prison,[1] a more descriptive grouping immediately suggested itself:

First, crimes in which the individual seeks monetary gain. In the struggle for existence, certain individuals drift into the lower ranks of society and become dependents. The average man is usually able to make an honest living and recognizes the truth of the old adage, "Honesty is the best policy." So, though all types may be dishonest and get arrested, the majority of this group are quite obviously handicapped. They are often the unfortunate among us rather than the bad. This may seem somewhat opposed to Aschaffenberg's theory of economic necessity as a cause of crime, thereby putting the responsibility more on society than on the individual. Needless to say, the feeble-minded are very numerous among these handicapped ones.

Second, crimes due to a manifestation of the sexual impulse. These individuals are frequently abnormal; many are feeble-minded or alcoholic, and many are sex perverts.

Third, crimes due to emotion, such as rage, jealousy, revenge, etc. These are quite often alcoholic, insane or feebleminded.

This grouping,* as is readily seen, suggests the underlying motive for the crime, showing it to be quite a personal matter, and to some extent describes the individual. It usually indicates quite definitely the line of treatment which should be followed.

Again, we may group our individuals in such a way that we not only explain the commission of the crime but suggest a remedy.

*Group No. 1. Crimes due to new social conditions.* If we search Colonial records, we find a large proportion of criminal action to have been directed against the Indians. They were not acquainted with European customs and standards and constantly came into conflict with the law. And yet, if we read Red Jacket's speech to the Massachusetts missionary, we are inclined to believe that the Indian was quite as moral as the white man. The high percentage of Italians in Charlestown is another example of this group.

*Group No. 2. Environmental cases.* We frequently see street urchins who have either picked up or been actually taught to earn their living dishonestly; who have never had an opportunity to learn standards of correct living, and whose crimes seem to be quite largely due to environment.

*Group No. 3. The accidental group.* This is a small group and one which need not be treated specifically. Punishment will never entirely prevent accidents.

*Group No. 4. The voluntary criminal.* There are certain individuals who are well endowed mentally and who have no excuse for doing wrong, who voluntarily commit crimes. Punishment, for its deterrent effect, seems to be applicable to this group.

*Group No. 5. The physically handicapped.* Everyone who has worked with criminals is impressed with the large number of sickly, maimed, and deformed individuals who need medical treatment and social service aid.

*Group No. 6. The drug and alcohol addicts.* A very large group; more than half the arrests in Massachusetts are for drunkenness, and a large percentage of other crimes, such as assault, are directly due to drunkenness. The folly of locking these individuals up for a few days and then turning them loose indiscriminately, is obvious. The incurable and demented should be segregated; the others should be supervised.

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* These groups correspond in a general way to Gordon's greed, lust and malice.

*Group No. 7. The insane.* Two years ago, seven out of 28 indictments for murder in Massachusetts were against individuals obviously insane. The huge percentage of dementia praecox patients among our vagrants is well known.

In my Bridgewater series,[2] it appeared that 7% of all persons sentenced for vagrancy were so obviously insane that a physician's examination was not necessary to demonstrate the fact.

*Group No. 8. The socially irresponsible.* There are certain individuals, not insane and not feeble-minded, who yet are neurotic and unstable, and who are socially irresponsible. These individuals can be recognized though the exact name that should be given them is not settled upon; if they commit a crime, they should be treated as irresponsible persons.

*Group No. 9. The feebleminded.* This group probably more than any other constitutes what might be known as the typical criminal. Mental defect is found in all grades of criminals. In Massachusetts, over 50% of a series of prostitutes were found to be feeble-minded; 24% of the inmates at the Reformatory for Women; 15% at the Reformatory for Men; 23% at the Charlestown State Prison. If the feeble-minded patient is actively anti-social, permanent segregation is the only rational method of handling the case. The matter of prevention concerns this group especially, as the female feebleminded delinquents are notoriously prolific.

It is fair to inquire as to the purposes of penal procedure. There can be but two if the old idea of "An eye for an eye and a tooth for a tooth," be left out: First, and perhaps more important,—the protection of society; second,—the treatment of the individual offender.

The same purposes are behind our modern treatment of a smallpox patient. We isolate to protect society; we treat to cure the individual. Our present penal procedure is as though we were content to isolate our smallpox patients and let them take care of themselves, instead of sending them to a first-class hospital and giving them the best of care. Mr. Osborn aptly remarks that it should be pointed out that if the analogy is to be correct, the smallpox patient should be sent out in a given number of days, whether he is well or not!

Although these two purposes merge one into the other, it seems evident that the protection of society must always be left with the court, as the one studying the individual is at times inclined to sacrifice society for his patient. So a maximum and minimum sentence is probably desirable: the former for the protection of the individual; the latter for the protection of society. It would seem impossible, with the limited time at the disposal of the court, to determine not only guilt, but an accurate diagnosis and plan treatment for each individual; and so, as is done in Ohio with juveniles at present, the court should determine guilt, and subsequent study of the person's past life and present mental equipment should determine treatment.

Treatment should fall into four main groups:

First, Reform: This should be particularly applicable to intelligent individuals whose delinquency was due to environment or habit. It applies to certain of the alcoholics.

Second, Education: This should provide that each man leaving prison should have a common-school education and some vocational training as an aid to adequate self-support.

Third, Medical Care: Though most prisons have a "jail physician," one rarely finds adequate medical attention given convicts.

Fourth, Profitable Occupation: This should apply to those individuals who are more or less permanently segregated.

The outlook is favorable. Though the ideal has not been reached, we find, scattered all over the country, workers who are being well supported, and there is every reason to hope and believe that the care and treatment of the criminal will become a science and an art rather than a job.

References.

[1] Stearns, A. W.: Bulletin No. 16, Massachusetts State Board of Insanity, December, 1915.

[2] Stearns, A. W.: Bulletin No. 12, Massachusetts State Board of Insanity, August, 1915.

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# TREATMENT OF SOME OF THE POSTURAL DEFECTS AND HABIT MOTIONS COMMON AMONG THE BLIND.*

By Miss Lenna D. Swinerton, Watertown, Mass.,

*Medical Gymnast at the Perkins Institution and Kindergarten for the Blind.*

## GENERAL PHYSICAL CONDITIONS OF THE BLIND.

Educators of the blind in the United States and elsewhere have, from the beginning, recognized that their pupils had special need of physical training. This need they attribute to a series of causes:—first, to the low vitality and impaired nutrition of blind children and youth due to the lack of free physical activity in their early years. Second, to the nature of the disease which caused blindness and at the same time weakened the fibre of the entire nervous system. Third, to the fact that a person working under a constant handicap must necessarily expend more energy in doing a given amount than would be expended by a person of normal faculties. Fourth, to the fact that those who are naturally robust cannot indulge freely in muscular exercise except in surroundings from which all obstructions have been removed.

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* Read before the Massachusetts Therapeutic Massage Association, Feb. 15, 1917.

Pupils are received into schools for the blind not younger than five years of age, nor older than nineteen, execept by special provision. When they enter they vary as widely in mental and physical assets as they do in years. Some of the little ones have previously been well cared for in nurseries for blind babies, or in good homes where they have been taught to walk, to feed themselves, to button their clothes, go up and down stairs, and to play freely. Others have been waited on by inches and allowed too little venturesome activity by over-indulgent and over-cautious parents.

The longer children of this latter type remain at home, and the older they are when placed in school, the longer it takes them to overcome the timidity, awkwardness, and inertia which such home life has engendered. Under the best of home conditions, lack of sight puts a sufficient check upon the long-range activities and spontaneous play of a child to limit the vigor of his bodily development; and when he also suffers from the effects of inherited syphilis, cerebrospinal meningitis, or other disease, which besides causing his blindness, saps the vitality of his nervous tissue, we can understand at once that his first need is for nutrition. But this is not all,—tasks which, when performed with the aid of sight are comparatively simple, become difficult to the blind worker, young or old. With him stringing beads, reading, writing, skill in using tools or playing musical instruments, and even what should be recreative play, call for close application and the highest co-ordination of his faculties. This means a large proportional output from hour to hour of his already short quantity of energy, thus hastening the oncoming of nervous fatigue, and shortening his period for effective labor. In doing even simple tasks, also, his effort is often so prolonged that he loses a part of that restful reaction which the joy of attainment should bring.

One writer calls attention to the fact that in schools for the blind, "from one half to two thirds of the pupils are able to see light, and one half of these see well enough to keep from running into objects." But this "sight," he suggests, "is not always of advantage to them; to those whose eyes are unequal to the demands made upon them, it is a hindrance." That is, it becomes an eye strain. Personally, I believe that others who have no useful sight often experience fatigue from ear strain, when obliged to work or play in noisy surroundings or walk unattended along a busy street.

If conditions already enumerated point to the need of increased physical resistance in persons deprived of sight; and if the purpose in educating the blind is to enable them to surmount their limitations and to become sufficiently self-helpful to engage in the civic, social, and industrial activities of the communities in which they live, then, obviously, those forms of bodily exercise which increase vital capacity, develop personal independence, and pleasing presence, and promote manual proficiency, are of the utmost value to them.

In addition to regular gymnasium practice pupils in all schools for the blind are urged to enter courageously in many games and sports—archball, track running, rowing, swimming, skating, coasting, and other activities. A considerable number of these pupils, it should be remembered, have partial sight, which means it is possible for them to protect themselves against collision, and aid in guiding their totally blind companions. Their teachers also are required to lend assistance on the playgrounds.

### THE NEED OF CORRECTED GYMNASTICS.

In any assemblage of from two to three hundred boys and girls of school age, we are likely to find several cases of bodily deformity, and we might expect that the number of such cases would be relatively large in a school for the blind. At the Perkins Institution, especially in the kindergarten and primary divisions, we find many children who have postural defects,—heads that drop forward, or turn to one side, accompanied with the consequent round or uneven shoulders; an occasional lateral curvature of the spine; and now and then a little arm or leg hanging half helpless as a result of paralysis.

In the treatment of these cases we have to deal not only with low vitality but other conditions peculiar to each individual. Many children who perceive a ray of light or have partial vision in one eye turn the head continually to one side, which produces a twist or lateral curve in the cervical spine and makes the shoulders unequal in height. Others drop the head far forward, either in the effort to see better or because the light hurts their eyes, or because, if perfectly blind, they have no special incentive to look up, or in many cases from deficient will-power, thus inducing round shoulders and depressed chests. Not a few thrust the abdomen forward as apparently the most convenient *buffer* with which to prevent bumping their heads on the object toward which they are walking. Just why a very large number have one pronated foot I do not know. Probably as babies they have run much less than normal children, and instead have adopted a shiftless habit of standing for long periods at a time in some corner or by a wall where they felt comparatively safe. Some have the trick of standing with one foot on top of the other or sitting with one foot under them.

In attempting to correct these faulty postures we cannot begin by giving the child a mirror and showing him how badly he looks, nor by pointing to mamma and telling him to see how nicely she is standing; pictures are of no avail, and, as yet, our children have been given no study of sculptured forms with a view to awakening their appreciation of the beauty of a well-poised symmetrical human body. Lacking this appreciation, or having but a dim ideal, though we allow them to "feel" of living models in the gymnasium, their comprehension of correct posture must be mainly developed through the muscular sense. Pupils who are intelligent, self-respecting, and painstaking often learn to carry themselves well, while those who are weak-willed, and irresponsible make little gain even after years of patient training. The teacher, however, must aim to keep all cases from growing hopelessly worse until she can interest each child in doing his part toward overcoming his defect.

In the kindergarten and first six grades of the school at Watertown, most of my work is with cases of the neck and shoulder type and with weak ankles and feet. The lines of treatment followed include massage with single and resisted movements of the neck and back, or of the feet and legs, according to the case, also shoulder-blade and walking exercises, arranged to suit the age, interests, and muscular strength of the different children. Exercises under play names, either borrowed from, or in imitation of those tabulated in "Educational Gymnastic Play," are entered into with zest by the little girls and boys; the teacher taking care that good posture is maintained in each movement. Light chest weights, dumb-bells, wands, stall-bars, a balance ladder, and other pieces of gymnasium apparatus, lend variety to the work. A corrective machine, which one little boy named the "elevator," is used for stretching stiffened spines and shortened ligaments. Girls with long hair, who forget to sit up, sometimes find their pig-tails pinned to the backs of their dresses as a helpful reminder.

In postural cases parts of each lesson are given with the patient lying on a table, to remove weight from the spine or localize muscular effort, and a part in sitting position, to emphasize the sense of correct sitting posture.

Just now, many of the children are interested in small Sandow spring dumb-bells; as these bells must be tightly gripped during a part of each movement I hope they may prove helpful to certain pupils who have very flabby hands and equally flabby wills.

For the children having pronated feet the school physician orders laced boots with Thomas soles and heels—sometimes arch supports. He also suggests the methods of treatment to be followed in the simpler types of postural and nervous affections and refers serious cases to orthopedic or other specialists for advice. Most of the children have either kindergarten games or general gymnastics with the class teacher, and all have outdoor play, therefore their time with me is spent in localized individual work. For various reasons I can give each pupil only about three hours a week, which seems much too little, and is, when we consider that for several periods each day the children sit using two hands in front of them,—in reading, writing, working, in whatever they do it is always with both hands out in front, which increases their tendency to lean forward. For this reason I choose always for them exercises of extension and expansion and discard, if possible, any which tend to cramp the chest or force the head forward.

### HABIT MOTIONS.

If some of our pupils are slow in correcting faulty postures, it seems well-nigh impossible for others to overcome the habit of indulging in erratic, inane, and sometimes uncouth motions. Here again, inability to use a mirror or to appreciate the beauty of human comeliness, coupled with a minus quantity of self-control, makes the usual methods of treating "tic" difficult to adapt. Is it not possible that some of these habits have their origin in a natural craving for sense pleasure? One child, for example, who can perceive a faint ray of light, shakes his hands continually in front of his eyes. To him it is "seeing"—"making little days and nights," one said. Another seated with fingers thrust into his eyes, because, perhaps, pressure upon the eye-ball gives him a sensation of light. German scientists tell us that this is an expression of hunger for light. With still another, may not the constant rolling of the head or swaying or vibrating the body, be due to a desire for free muscular activity which he is too timid or too indolent to gratify in some better way? Perhaps these ungratified cravings aggregate the too common tendency to indulge in injurious secret practices.

In the habit motions arising from hunger for light or sight, we cannot remove the cause. We should win the child's affection and try in every possible way, including permissible forms of discipline, to teach him to put forth inhibitory effort, at the same time keeping his hands busy with pleasurable occupations or interesting playthings. In the other group of cases, vigorous, progressive, coördinatory gymnastics and supervised play should be urged to the limit of the child's endurance, though if he be mentally sub-normal or downright lazy, or both, the teacher is to be pitied.

Another type of motion, such as jerking the fingers or limbs or whirling the body around and around, would seem to be due to excessive nervous irritability. Children having these habits should be removed from exciting surroundings and given ample room to work or play quietly by themselves, preferably in the open air. There should be given regular periods of rest, and such forms of exercise as tend to develop "power through repose"; massage of the back, slow passive or relaxing exercises, followed by a few active movements for balance and control.

But some one may ask: "But why struggle with all these conditions? Can enough be accomplished to justify the cost?" Perhaps not. My answer is that lack of sight is enough of a handicap to put upon one individual without additional disabilities. If the blind man is to succeed socially and financially he must have, first of all, friends; hence, his necessity for an unrepulsive presence; and if his daily output of nervous energy is to be constantly in excess of the normal, then, if he is to survive in the struggle for wage-earning existence, he must, during his growing years, be given every opportunity for establishing sound health.

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## Clinical Department.

### A CASE OF IRITIS AND OPTIC NEURITIS FOLLOWING TONSILLITIS.

By Irving Sobotky, M.D., Boston,

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It is agreed among ophthalmologists that iritis, with a few exceptions, is not an isolated ocular disease, but depends, usually, for its development upon microörganisms or their toxins.

DeSchweinitz is strongly of this opinion, and says that uveal tract inflammations are manifestations, usually, of systemic affections, and advises a thorough search for local areas of sepsis from which the bacterial element or its toxin arises.

It naturally follows that the mouth, teeth, tonsils, the nasal accessory sinuses and the intestinal tract must be carefully examined, also the prostate, urethra, seminal vesicles and the pelvic organs.

Syphilis and tuberculosis are often causes of iritis, but even with one or both of these conditions present the above-named regions should not be neglected.

Optic neuritis, just as iritis, depends upon an infective agent in the blood for its cause. It frequently follows rheumatism, tuberculosis, syphilis, gout, influenza, diabetes, smallpox, and scarlet fever, or may come directly from a focus of infection in the mucous membrane of the mouth, nose, or throat. Such toxic agents as lead and alcohol, also menstrual disturbances, auto-intoxication, overwork and prolonged eyestrain are etiological factors.

If the infective focus is found in these cases and absolutely eliminated, a brilliant result can be achieved.

The writer wishes to report a case where both iritis and optic neuritis developed after an attack of tonsillitis and where a tonsillectomy resulted in an apparent cure.

C. D., stenographer, aged 21, single, was seen at her home, October 19, 1915. She gave a history of attacks of tonsillitis, usually at yearly intervals, followed, one week after the development of the tonsillitis, by pain, blurring and inflammation of both eyes.

Upon examination she was found to be convalescing from an acute follicular tonsillitis, and showed enlarged and tender cervical glands and extreme injection of the cornea of the right eye. The eye was very painful and sensitive to light. She was advised to enter the Massachusetts Eye and Ear Infirmary for treatment. She visited the Out-Patient Department on October 20, and the record is quoted below.

"Oct. 20. Diagnosis: Iritis of right eye. Optic neuritis of both eyes. Pupil well dilated and regular. Cornea apparently clear. Upper lid slightly swollen. No evidence of syphilis.

Oct. 25. Less pain in right eye. Left eye, slight ciliary injection.

Oct. 29. Nasal examination shows rhinitis and diseased tonsils. X-ray report: Teeth and accessory sinuses negative."

Dr. Quackenboss agreed with the writer that the tonsils should be removed. Accordingly on Nov. 4 her tonsils were enucleated at her home. The crypts were engorged with caseous material and the tonsils showed a chronic low-grade inflammation. The recovery from the operation was uneventful.

Infirmary record, continued:

"Nov. 11. Wassermann negative.

Nov. 30. Vision with present lenses: right eye, 20/40; left eye, 20/30+.

Dec. 7. No floating opacities seen today.

Dec. 14. Vision with glasses: right eye, 20/50; left eye, 20/40. Has a very definite swelling of both nerve heads, at least two diopters, with some dilatation of vessels.

Dec. 21. Vision with glasses: right eye, 20/70+; left eye, 20/50—. Swelling is about the same today.

Dec. 22. Recommended for admission to the house. Lumbar puncture."

House Record:

"Dec. 22. Right eye. Lids, cilia and conjunctiva negative. Cornea negative. Anterior chamber normal. Lens and media clear. Vitreous clear. Disc swollen, two diopters. Veins large.

Dec. 23. Discharged to the Out-Patient Department unchanged. Vision on discharge: right eye, 5/100+1.5 = 20/200; left eye, 10/100+1.5 = 20/70. Report of spinal fluid: pressure, 200. Cells, 15 per cu. cm. Proteids, alcohol, slightly +. $(NH_4)_2$, $SO^4$, 0. Wassermann, negative. Gold, negative."

Out-Patient Department:

"Dec. 28. Right eye, +1.50 = 20/70; left eye, +1.50 = 20/50.

Jan. 4, 1916. Vision: right eye, +1.50 = 20/50; left eye, +1.50 = 20/70+.

Jan. 11. Vision: right eye, +1.50 = 20/40; left eye, +1.50 = 20/50. Swelling of nerve heads better in both eyes. Left eye less swollen than right eye.

Jan. 18. Vision: right eye, +1.50 = 20/20; left eye, +1.50 = 20/20. Still slight swelling of nerve heads. Can work in a week.

Feb. 1. Vision: right eye, +1.50 = 20/20; left eye, +1.50 = 20/20.

March 1. Vision: right eye, +1.50 = 20/20; left eye, +1.50 = 20/20. Discs look perfectly normal outside of slight blurring."

The patient started at her work as stenographer on Jan. 25, 1916, and has not missed a day since. There has not been the slightest suggestion of a return of the iritis or the optic neuritis to this date, March 20, 1917.

The writer wishes to express his thanks to Dr. J. B. Ayer for his report of the examination of the spinal fluid.

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# A WONDERFUL PROVISION OF NATURE FOR DRAINAGE OF A PELVIC ABSCESS. EVOLUTION OF AN ADVENTITIOUS DRAINAGE TUBE.

BY HORACE PACKARD, M.D., F. A. C. S., BOSTON,

*Professor of Surgery, Boston University.*

A CASE recently operated on for the radical cure of chronic pelvic abscess presented such a surprising and wholly unique (in the writer's experience) mechanism for drainage that this record is offered. Briefly, a distinct and perfectly formed tube standing out clearly, and practically free from adhesion with any of the adjacent viscera, extended from the depths of the pelvis up along the left side to an opening in the abdominal wall, a little to the left of the median line and about two inches below the umbilicus. It had a slight mesenteric-like attachment to the pelvic parietes, easily separated by finger dissection and snipping scissors, and was covered with a smooth peritoneum-like covering. The history of the case is briefly as follows:

Two years ago, the patient was operated on in a suburban hospital for an obscure tumefaction of the lower abdomen and pelvis. A suprapubic incision was made. Digital exploration was almost at once followed by a gush of pus. A conservative course then seemed wise and a drainage tube was adjusted and the abdominal wound closed, all but an exit for the drain. After seven or eight weeks the patient began to be up and about daily but with a discharging sinus. A ventral hernia gradually developed which, at the time of the writer's operation, was large—as big as a very large grapefruit.

With the patient in the Trendelenberg posture an incision was cautiously made through the lax, thin stretched-out cutaneous scar tissue at the site of the ventral hernia. On reaching the abdominal cavity I was much surprised to find that there were practically no adhesions of intestinal loops about the ventral hernia opening, nor with the inflammatory mass filling the pelvis. The caecum and transverse colon were free and the sigmoid also, except as it merged into the rectum and passed down through the left side of the inflammatory mass. The only adhesion was an elongated tail of omentum which extended down into the pelvis.

The operation performed by the writer consisted in enucleation of both tubes—no longer recognizable as such. Both ovaries were inextricably mixed up in the ancient inflammatory mass and of course had to come out also. Little or nothing in the way of "lines of cleavage" could be found which made the operation extremely blind and menacing to adjacent structures—rectum, bladder and ureters. To insure effective down drainage, the uterus was also removed. At the present writing the patient has practically recovered from the pelvic abscess part of her difficulties. It seemed futile to attempt repair of the ventral hernia since the operative field must be assumed to be strewn with septic matter, but with perhaps more optimism than discretion, and with a forlorn hope of at least reducing somewhat the large hernial opening, the now widely separated edges of the recti muscles were quickly exposed, freshened and drawn together with three deeply placed strong linen sutures. Gauze drainage wicks were adjusted both abdominally and vaginally. Free discharge of sanguineous sero-purulent fluid occurred both up and down for a few days. The abdominal wound closed throughout except for a lingering sinus at the drainage opening and where the linen sutures were placed. The sutures were later hooked to the surface with a crochet needle and removed.

What are the constructive forces residing within which enables a patient to evolve a tubular structure several inches long to meet the necessities of drainage of a deeply-seated abscess? It is useless to conjecture, for we have no precedents to guide us except the laws of evolution. That this individual should have been able to evolve a mechanism to meet her needs is possibly explainable by the fact that she possesses remarkable cellular potentialities. For two years she had carried a focus of suppuration which yielded copious discharge of pus. Through all this septic handicap and depletion of her forces she carried and maintained a thick head of hair reaching to her ankles. She had also carried the ventral hernia without support except such as was afforded by a common cotton binder. She also exhibited remarkable tissue repair following the operation; for, according to usual precedents in such cases, the wound should have suppurated throughout. I have no knowledge of the character or source of the original infection. A culture taken from the sinus just prior to the operation showed a simple staphylococcus infection.

## DO VISCERAL ADHESIONS EVER RAREFY AND DISAPPEAR?

From the writer's experience in similar cases it seems almost impossible to think of such a case following the course above described in the history given, without intra-visceral and ventro-visceral adhesions. The adventitious drainage tube was a totally separate entity; in no part of its length did loops of intestines, omentum or pelvic parietes enter into the structure.

This case, with two others which have occurred in the writer's experience, leads to speculation upon the possibility or the probability that, under favoring conditions, abdominal visceral adhesions undergo rarefaction and disappear. In both widespread infection of the peritoneum occurred, one from a pelvic abscess, the other from an appendicular abscess. Long after, I had opportunity of opening the abdomen, in one for repair of a small fecal fistula, and the other the removal of an ovarian tumor. In both, appearances indicated that there had been a remarkable loosening up and rarefaction of adhesions.

## A CASE OF TUBAL PREGNANCY.

By Edward H. Mackay, Clinton, Mass.

The following case is recorded with a view to adding to the literature upon extrauterine pregnancy, a case, the original cause of which could with reasonable probability be traced to an acute inflammation of the vermiform appendix.

Mrs. A. B., aged twenty-eight years, and a housewife, was admitted to the Clinton Hospital on October 25, 1916. Her mother died at the age of forty-nine years, of cancer of the stomach. Otherwise there was nothing of importance in the family history. In 1907 she was operated upon for acute suppurative appendicitis. Drainage was employed and her recovery was uneventful. Although her marriage took place in 1912 there were no pregnancies previous to that now recorded. The patient's catamenia began at the age of twelve years and were of the thirty-day type with an occasional irregularity of two or three days. On September 20, which was two days overtime, she menstruated, with nothing unusual to report. On October 17 she summoned her physician on account of a discomfort in the right upper quadrant of the abdomen. Examination of the upper abdomen revealed nothing tangible to account for the patient's complaint. There was, however, on October 18, a recurrence of pain under the right costal border and more acute in character. Before the arrival of her physician she had obtained relief by voiding about twenty-four ounces of urine that was found to be normal. Menstruation was established October 22, again two days overtime. There was more pain than usual especially in the right side of the pelvis. It was acute and spasmodic in character. There was no nausea, vomiting or evidence of shock; the pulse was ninety and of good volume.

On October 25 there was a recurrence of pain, again acute and associated with a perceptible distention of the lower abdomen. Tenderness and muscle rigidity were pronounced upon the right side of the abdomen. The indications for operation were deemed urgent and the abdomen was opened through a right rectus incision. A considerable amount of free blood was present in the abdominal cavity. The right adnexa were found involved in a mass of adhesions from which the distended tube was soon separated and exposed. The tube was unruptured but bleeding freely through its fimbriated extremity. The amount of free blood was unusual in the presence of a tubal abortion without rupture. The walls of the Fallopian tube were distorted, thick and firm, apparently the seat of pathological changes. The tube was excised. The left tube and both ovaries were healthy. The abdominal wound was closed without drainage. Convalescence was uninterrupted and the patient was discharged well on November 12.

In reviewing this case one is led to the conclusion that the pathological changes in the right Fallopian tube, being unilateral, were probably a sequence of the inflamed appendix; and that the detention of the ovum in the right tube within all probablity was caused by the diseased condition of its walls.

## A CASE OF AMEBIC ABSCESS OF THE LIVER IN A GUARDSMAN RECENTLY RETURNED FROM THE MEXICAN BORDER.

By Lester Adams, M.D., Bangor, Maine.

A white man, aged 38, was admitted to the medical service of Dr. Wm. P. McNally at the Eastern Maine General Hospital on Dec. 13, 1916, complaining of pain in the right side, loss of weight and strength.

*Family History.* Mother died of tuberculosis 5 years ago. There are brothers and sisters living and well.

*Personal History.* Patient had diseases of childhood, and typhoid 20 years ago, being well with these exceptions up to the time of the present illness. Had used alcohol moderately. Denied history of chancre. Has been married but wife died 5 years ago of "consumption." She bore no children and had no miscarriages.

*Present Illness.* He went to the Mexican Border in June, 1916, with the National Guard, and was well up to the night of Sept. 5. At this time, while on guard duty he was taken with sharp pain in abdomen, followed in two hours by diarrhoea. The bowel movements were frequent, contained mucus and blood, and the condition persisted until his return to the North in the middle of October. Since that time he has been incapacitated by pain in the liver region. This has taken the form of a dull ache in front and in back. It has been worse at night, has occasionally been paroxysmal and has necessitated the use of morphine. There have been no sharp cramps such as accompanied the diarrhoea, and bowels have been slightly constipated, requiring an occasional saline cathartic. His appetite has been poor, and he feels that he has been failing constantly in strength.

*Present Examination.* The patient appears distinctly ill. The eyes are sunken, the expression anxious. The skin and conjunctivae have a muddy tint. There is marked emaciation.

The heart is not enlarged to percussion, and the sounds are clear, the pulse regular in force and rhythm, good volume and tension, 80 to the minute.

The lungs are resonant to percussion and the breath sounds clear. No râles are heard.

The liver dulness begins at the 4th interspace anteriorly and at the 9th rib behind. It extends to about 6 cm. below the costal margin in the right mammillary line, and 2 cm. below the costal margin in the left mammillary line. There is a visible fulness in the region of the liver and the respiratory movements are limited on this side. Palpation elicits tenderness at costal margin in front and behind, and there is moderate rigidity of the abdominal muscles more marked on the right. There is also tenderness over the course of the ascending colon.

X-ray examination shows great increase in the size of the liver, principally on right. White blood count, 11,000; red blood count, 3,000,000; hemoglobin (Dare), 56%. Differential count shows a relative increase in the polymorphonuclear neutrophiles, no increase in the eosinophiles. Wassermann test negative. Repeated examinations of the stools after normal movements and after saline catharsis failed to show amebae. There was continued fever between 99 and 100 during the first week of observation. Later there were intermissions.

Because of the history and findings, a liver abscess was suspected, and on December 27 the patient was transferred to the service of Dr. E. B. Sanger for operation. A right rectus incision was made, beginning at the costal margin. The liver edge was found to be thick and the tissue soft. In the right lobe posteriorly there was fluctuation, and during the manipulation the tissue was torn, liberating a large amount of pus (about 1 litre). A large cavity could then be felt occupying nearly the whole right lobe of the liver, having a wall in places the thickness of a finger. The wound was closed with drainage.

Examination of the pus showed it to be thick, reddish brown in color, containing large pieces of necrotic liver. Microscopically there were pus and red blood cells, and debris. No amebae were found. No bacteria were found in smears or in cultures in plain agar and broth. Examination of the pus draining from the wound, 5 days after operation, showed many active amebae containing granules and red blood cells.

Immediately after operation the patient seemed greatly relieved, was entirely free from the pain, and for a week seemed to gain in strength. After that time the condition showed progressive weakness, and he died Jan. 18. No emetine or other drug to kill the amebae was given. The terminal symptoms were those of bronchopneumonia. There was no evidence of general peritonitis. Autopsy was not permitted.

*Distribution of amebic dysentery in United States.* Amebic dysentery is endemic in the Southern States, while sporadic cases have been reported from New England to the Western coast. It depends upon the ingestion of the Endameba histolytica in drinking water or food.

*Diagnosis.* Deaderick and Thompson state in "Endemic Diseases of the Southern States": "The absolute diagnosis of amebic dysentery upon clinical findings alone is usually impossible, although certain symptoms are very suggestive. A disease of acute onset with nausea and vomiting and griping diarrhea, especially in endemic centres of amebic dysentery, must be looked upon with suspicion. Again, a disease of insidious onset, with chronic diarrhea, emaciation, etc., should be considered at least possibly amebic dysentery. It is, however, upon microscopic examination of the feces or pus from an hepatic abscess for the Endameba histolytica that the final diagnosis must rest."

While motionless amebae can be recognized, it is most desirable to observe motility in order to insure identification. Text-books on diagnosis emphasize the importance of securing fresh specimens of stools for examination, and of warming the slide by use of the warm stage. Improvised methods are also successful, such as warming the microscope stage by a micro burner or by electric bulbs. It is also recommended to examine particles of mucus that occur in the stools, or to secure mucus by passage of a rectal tube. The differentiation of the pathogenic endameba histolytica and the non-pathogenic endameba coli is also fully considered, and is of importance here.

Symptoms of Amebic Dysentery (abstracted from Osler's Practice).

Three groups are recognized according to symptoms:

*Mild form.* Infection may be present for a month or two before the individual is aware of it. There may be vague symptoms: headache, lassitude, weakness, slight abdominal pains, occasional diarrhea. Amebae may persist in stools without symptoms. Liver abscess may occur in these cases.

*Acute amebic dysentery.* Many cases have an acute onset. Pain and tenesmus are severe. The stools are bloody, or blood and mucus occur together. In very severe cases there may be constant tenesmus and pain of great intensity, and the passage every few minutes of a little blood and mucus. The temperature as a rule is not high. The heart action may become feeble, the patient may become rapidly emaciated, and death may occur within a week of onset. While in a majority of instances the patient recovers, in others the disease may become chronic.

*Chronic amebic dysentery.* The disease may be subacute from onset, and gradually passes into a chronic stage, the special characteristic oof which is alternating periods of constipation and diarrhea. These may occur over a period of months, or a year or more. Many of these patients do not feel ill, and retain their nutrition in a remarable way. Alternating periods of improvement, with attacks of diarrhea, are the rule. The appetite is capricious, the digestion disordered, and slight errors in diet are apt to be followed at once by an increase in the number of the stools. The tongue is often red, glazed and beefy. In protracted cases emaciation may be extreme.

*Prognosis.* Death may occur during the acute stages, as mentioned, as a result of the intestinal lesions. There occur also perforations of intestinal ulcers, with resulting peritonitis. In the long-protracted cases death may occur from intercurrent diseases, as tuberculosis or pneumonia. As a cause of death, liver abscess is mentioned second in importance to the severe intestinal lesions. Figures quoted by Deaderick and Thompson show that the mortality varies among different classes and with different treatment from 2.9 to 34.2%. The importance of recurrence is emphasized. The prognosis in cases with acute onset is not so good as in those with gradual onset. Complications influence the prognosis.

*Treatment.* Emetin, one of the alkaloids of, ipecac, has been found to be a specific, killing the ameba in dilutions of 1-10,000 to 1-50,000. This is given by mouth or preferably hypodermically or intravenously. Hypodermic doses of 1/3 to 5 or 6 grains have been given in salt solution, the frequency and number of doses regulated by examination of the stools. The larger doses are said to be irritating, but seldom cause nausea or vomiting.

*Hepatic abscess.* Osler mentions (Practice of Medicine) that in 119 cases of amebic dysentery, there were 27 cases of abscess. Of these, 18 came to autopsy. In 10 the abscess was single, in 8, multiple. He records a case in which abscess occurred six years after the onset of the dysentery, although usually it develops in two months.

The late Dr. A. O. J. Kelly (Osler's System) quoted Manson as follows:

"Golden rules in tropical practice are to think of hepatic abscess in cases of progressive deterioration of health, and to suspect liver abscess in all obscure abdominal cases associated with evening rise of temperature, and this particularly if there be enlargement of or pain in the liver, leucocytosis, and a history of dysentery—not necessarily recent dysentery. If doubt exists there should be no hesitation in having early recourse to the aspirator to clear up the diagnosis."

The constitutional symptoms include chills, fever, sweating, the hepatic facies, with muddy or icteric tint to the skin and conjunctivae. The leucocyte count may be normal or greatly increased with relative increase in the polynuclear cells.

The liver shows enlargement, giving a characteristic dome-shaped contour to the diaphragm if an abscess of sufficient size is located in the right lobe.

Untreated abscesses rupture into the lung, peritoneum, intestine, pericardium, stomach, bile duct, vena cava, kidney, and lumbo-sacral region. Spontaneous healing with recovery occurs occasionally after rupture into a bronchus.

Deaderick and Thompson state, "If the hepatic abscess be small, it will probably usually yield to the general emetine treatment alone. Rogers early reported the aspiration of liver abscess and the injection of the cavity with one grain of emetine dissolved in one ounce of normal salt solution. This with small and medium-sized abscesses is usually sufficient, but with large abscesses a radical operation may be necessary, although Cantlie considers 'cutting' operations 'over-heroic,' and that better results are obtained by the use of a trocar and cannula. A recent case treated by one of us was promptly cured after evacuation of the pus and daily injections of 1/3 grain of emetine."

*Conclusion.* Amebic abscess is rare in this part of the United States, so that it is not readily diagnosed or suspected. The occurrence of the condition in a member of the National Guard, recently returned from a region where amebic dysentery is known to be endemic, suggests that there may be other similar cases. Successful treatment depends largely on early diagnosis.

# Society Report.

## NEW ENGLAND SOCIETY OF DERMATOLOGY AND SYPHILIS.

THE sixth meeting of the Society was held at the Boston City Hospital on Wednesday, December 13, 1916, with the President, Dr. Abner Post, in the chair.

The following cases were presented and discussed:

### 1. MERCURIAL STOMATITIS.

Presented by DR. THORNDIKE.

The patient, in the full efflorescence of secondary syphilis, had received two inunctions of a dram each of the officinal unguentum hydrarg., and forthwith developed a malignant stomatitis. No other toxic symptoms were present. The gums were tender, soft, spongy, and almost fungating. The tongue was swollen, covered with an extremely heavy coat and emitted the characteristic offensive, mercurial fetor. The lower jaw could be moved only with great discomfort.

Such a susceptibility to mercury had never before been observed by the exhibitor, who had instituted treatment along homeopathic lines—in other words, treating this mercurial stomatitis with a mercurial salt, viz. calomel 2, Liq. Calcis 250. After the first twenty-four hours the fetor disappeared entirely and the inflammation subsided to a very marked extent. It is interesting that a mercurial salt should be healing in a case of mercurial stomatitis. Dr. White inquired if anything was known about the condition of the patient's kidneys. He recalled an old man who had taken three capsules of a proprietary iodine preparation. Incidentally, these capsules were stated to be free from the frequently poisonous effects of the drug. The man broke out into vegetative lesions, which soon broke down into rapidly spreading ulcers, and in less than a week the man was dead. At autopsy one kidney was found to be totally obliterated, and the other exhibited about one-third of its substance capable of normal function. Dr. Post remarked that the use of calomel wash was paralleled by the use of bichloride wash in similar circumstances.

### 2. CONGENITAL SYPHILIS.

Presented by DR. THORNDIKE.

The patient's father acquired syphilis at eighteen years of age, married five years later, received treatment during this time, and died subsequently of arteriosclerosis. The mother's health was delicate. One sister died of lues at two months of age. The patient's childhood was stormy. For the first year and a half there were no adult hairs. The child did not walk until two years of age, and then only with braces. At two and a half years abscesses of the gall-bladder developed. At fourteen menses appeared, were fairly regular, but scanty. At this time the patient was told she had tuberculosis. At the same period the eyebrows were lost, and since then complete alopecia of eyebrows has developed. A breast abscess then developed, followed soon after by another; and since then chronic mastitis of both breasts and inflammation of the upper portion of the pectoral regions has been present. At twenty-four years came typhoid fever followed by involvement of the eyes, probably an interstitial keratitis. At fifty-six years of age the pelvic organs were removed. All teeth have been extracted. The Wassermann test was negative a year ago, and examination of the spinal fluid also proved negative. The skin in general is now dry and xerodermic. The nails are thin, brittle, and badly developed. Recently there have been no general symptoms.

Under the inunction of mercury this unfortunate woman has improved very much, and following the intravenous administration of diarsenol still further improvement has been very marked.

### 3. SPOROTRICHOSIS.

Presented by DR. BLAISDELL.

The first case of sporotrichosis in New England; certainly the first to be reported in the literature.

*History.* The boy came to a local hospital about the middle of August, 1916. He first noticed on his forefinger a lesion which he described as a wart. After a week the lesion began to exude pus, and by that time the nail of the right forefinger had become involved. A diagnosis of paronychia was made in the Surgical Clinic, and the condition was treated accordingly with boric soaks, etc. The condition improved for the time being and then grew worse. Later, a small nodule developed on the back of the right hand and was treated for about a month. The boy then came to the Skin Clinic of the Massachusetts General Hospital, where sporotrichosis was suspected. When first seen by us the patient presented a paronychial condition about the forefinger and nodules running up the arm, lesions varying in size from a pea to groups of four or five nodules. No glands were palpable and there was no involvement of the axilla. Cultures were taken, and in the course of six days four tubes of pure culture of sporotrichosis were developed.

The boy was given K. I. gr. fifteen t.i.d. and the lesions subsided. He remained in the Skin Ward one week and then went home. The patient then stopped all treatment and the lesions promptly recurred. He then reëntered the ward and K. I. was administered again. This time some of the nodules broke down.

Sporotrichosis is found in "vegetable matter" and among horses. It is interesting, therefore, to note that this boy has always been a city dweller, living in Cambridge, and claims that he has never been twenty-five miles away from Boston. He lives with an uncle who, with his father, works on a city garbage wagon. The boy insists that he has never been to the stable, but has patted the horses in front of his home.

### 4. A CASE FOR DIAGNOSIS.

Presented by DR. BLAISDELL.

Last coitus eleven weeks ago. The penis is studded with fifteen or twenty, pencil-end-sized, superficial, eroded lesions covered with very slight crusts. Duration, nine days. The patient has treated himself with olive oil and sulphur the past two days, and has altered the appearance somewhat. Some of the lesions are in annular arrangement. There is a large right inguinal gland. Wassermann strongly positive.

### 5. LUPUS ERYTHEMATOSUS.

Presented by DR. HOWE.

A case of lupus erythematosus of two years' duration. The patient came to the clinic some time ago with a very marked involvement around the edge of the hair. A variety of treatment has not been followed by any marked change. The process persists about the ear, with more or less clearing and scarring.

### 6. PSORIASIS.

Presented by DR. THORNDIKE.

The patient presented a typical picture of psoriasis on the extensor surface of the elbows and gives a slightly positive Wassermann test. Dr. Thorndike stated that he finds in his experience with psoriatics that 8.6% give a positive Wassermann test.

### 7. LUPUS PERNIO(?)

Presented by DR. THORNDIKE.

The pathological condition dates back a year and a half, but during the summer the process greatly subsided. There is at present a markedly erythematous, swollen condition of the fingers and a beginning ulceration, while there are lesions on the forearms which are leaving scars.

The speaker was inclined to regard the case as one of folliclis, but could not exclude pernio because of the definite improvement evinced during the summer months; on the other hand, he stated that pernio did not leave scars.

### 8. DERMOLYSIS.

Presented by DR. BURNS.

The present pathological process is similar, if not identical, to a case previously described by Dr. C. J. White under the title of dermolysis. In Dr. White's case the disease was more extensive. The patient presented quite a number of dirty-white, somewhat soft, flat-topped nodules which clinically could not be included in any of the well recognized tumors. Pathologically, the picture was one of great local rarefaction of the corium accompanied by striking tinctorial abnormalities.

Dr. White remarked that his patient was a Russian baker, who for some years had been accustomed to sleep on top of his bread ovens. The present lesions were clinically identical with those of the earlier case.

### 9. LUPUS ERYTHEMATOSUS.

Presented by DR. HOWE.

The patient came to the Boston City Hospital four months ago with a diagnosis of ringworm of the face, but at that time the similarity to tinea circinata was more striking than at present.

### 10. PSORIASIS IN A BLACK NEGRO.

Presented by DR. BURNS.

The patient was presented as an example of psoriasis in the Ethiopian race. The lesions on the face were particularly interesting, but the condition of the scalp was quite characteristic of psoriasis. When first seen the process was so much more marked because of lack of treatment—localized, thick, heaped-up, dirty, yellowish scales—that on his very black cheeks a diagnosis was not quite clear until one looked at his body where the eruption was far more typical.

Dr. White drew attention to the marked alopecia present, which he would not call characteristic of psoriasis.

Dr. Harding wished to emphasize the striking similarity of the lesions on the face to cases of yaws which he had seen in West Indian negroes.

### 11. RODENT ULCER AND RADIUM TREATMENT.

Presented by DR. THORNDIKE.

Dr. Thorndike demonstrated a rodent ulcer nearly healed by radium. He spoke with enthusiasm of his results in other cases and exhibited photographs of previous cures. His practice is to use 50 milligrams of radium with weekly exposures of fifteen to twenty minutes, a method which in his hands seems to bring on healing much more rapidly than stronger applications.

### 12. HYPERTRICHOSIS.

Presented by DR. THORNDIKE.

The woman presented a complete beard, to which she had applied caustics every other day for five years, and Dr. Thorndike presented her with the query as to the advisability of employing the x-rays for depilation.

Dr. Towle asked as to the practicability of using radium.

Dr. Thorndike doubted the feasibility on account of the necessarily large applications.

Dr. Towle then inquired as to the permanency of x-ray treatment.

Dr. Thorndike cited two cases which were x-rayed three years ago, in which there had been no regrowth up to the present time.

Dr. White spoke of one ardent New York advocate of this method. For his own part he would advise strongly against such a procedure because of the danger of dermatitis actinica, ending possibly in cancer, and because of the disfiguring atrophy, pigmentation and telangiectases which were very apt to accompany these otherwise successful depilations. He would personally regard such a cure as worse than the disease.

### 13. LYMPHANGIOMA CIRCUMSCRIPTUM(?)

Presented by DR. THORNDIKE.

The patient has been under the exhibitor's care for a year and a half on account of a puzzling condition of the hard palate,—where one can see a few, white, elevated, papular lesions with a central depression. These lesions have caused pain but no ulceration during the year and a half of treatment, until within the last two or three weeks, when superficial erosions have occurred. The lesions have shown a tendency to coalesce, forming a homogeneous plaque, but those surrounding the plaque form as small, round papules, with a central depression. The patient has received anti-syphilitic treatment, but he has shown no improvement. The lesions have been cauterized with trichloracetic acid and nitrate of silver, but they have not been affected. Two half-hour applications of radium at weekly intervals have, likewise, failed to produce much change. The man is an inveterate smoker, but there is no suggestion of epitheliomatous degeneration.

Dr. White said that Dr. Blaisdell had suggested the possibility of lymphangioma circumscriptum, a diagnosis which seemed the correct one. Dr. White related a personal experience of some years ago, when one of his patients, who had been operated upon with the knife twice and with the electric cautery once by surgeons, was entirely cured by a massive dose of radium in Dr. Abbe's hands.

### 14. DERMATITIS CALORICA AND KELOID.

Presented by DR. THORNDIKE.

An extensive burn with painful keloidal development. At first the arm was contracted, but under massage the woman now has practically normal action.

Dr. Towle spoke of the highly satisfactory results he was obtaining in these cases from heliotherapy. He stated that some keloids would eventuate in apparently normal skin after proper and sufficient exposure to the sun.

### 15. PITYRIASIS ROSEA OR LATE SYPHILIS(?)

Presented by DR. THORNDIKE.

The patient apparently had a typical eruption of pityriasis rosea, but glandular enlargement was also present. When the eruption had nearly disappeared a Wassermann test was made with a triple positive result.

Dr. Thorndike said that he had had three patients within a year with late syphilis who had developed pityriasis rosea. Each patient had presented the mother-spot of pityriasis rosea, so that he did not feel that he was dealing with a recurrent roseola or a reinfection. These eruptions have taken a long time to disappear and have left pigmentation, which has also lasted many months. These coincidences, however, have brought up the question as to whether these eruptions are pityriasis rosea or late syphilis—a question which is difficult to answer.

### 16. DERMATITIS VENENATA.

Presented by DR. THORNDIKE.

The patient was a typical psoriatic with involvement of the scalp. He sought advice of a friend, who recommended a mixture of sulphur, sage tea and glycerine. This mixture was applied to the scalp, and was followed by an extensive dermatitis venenata.

### 17. BLASTOMYCOSIS.

Presented by DR. BURNS.

The disease is considered by Boston dermatologists as one of the rarest which they encounter, and the present example is, perhaps, only the third or fourth which has thus far been recorded in the skin department of the Massachusetts General Hospital. The patient is an Armenian, and presents only one area of infection, which involves the rather uncommon site of the eye. Here one sees the whole left ocular area affected with the typical, raw, verrucous, slightly crusting picture of the disease and surrounded by an extraordinarily well developed violet purple border. The patient has reacted promptly and well to curettage and to the ingestion of K. I. and bids fair to recover completely.

### 18. KERATODERMA ARSENICALE.

Presented by DR. CUMMINS.

The patient was a woman, afflicted with inveterate psoriasis, who had taken really large doses of Fowler's solution over months and years. She showed on her palms and soles clean, thickened, yellow hypertrophy of the stratum corneum. Otherwise there was at present no other evidences of her previous striking over-indulgence in arsenic.

### 19. Dermatitis Exfoliativa.

Presented by Dr. White.

There was nothing extraordinary in the dermatosis as such, but the patient was presented to remind the Society anew of the practically certain cure obtainable in this disease if the "dry treatment" is instituted early and carried out to the letter in every possible detail. No halfway measures can be permitted and any leniency to the patient or his family must be absolutely forbidden.

A dry, borated, absorbent powder is all that is necessary, but it must be used everywhere and constantly in the greatest amount possible. Any indulgence in ointments or baths is practically sure to bring about a recrudescence of the disease. Such a treatment demands bare walls and bare floors. The first week of the treatment is the hard one for the patient, for great cracks develop in the skin, and the subsequent pain seems almost to cry aloud for ointments or emollient baths. The physician must steel himself against these supplications, and within a few days relief comes, and from then on the patient is entirely comfortable, save for possible dryness of the eyes or of the throat, which yields easily to eyewashes and demulcent drinks. The great slowness of restitution to normality is the great drawback of this method, but it practically never allows a patient to die in this otherwise not infrequently fatal disease.

### 20. Lymphangioma Circumscriptum.

Presented by Dr. White.

A typical example of this not uncommon dermatosis.

### 21. Scleroderma.

Presented by Dr. White.

The patient was a man of 30, an old syphilitic with a moderately positive Wassermann, who, following an attack of pneumonia, had developed a rapidly progressive bronzing, hardening and stiffening of the skin of his face, shoulders, arms and torso. The involvement was extremely swift and the prognosis did not look good. Energetic treatment with thyroid extract, hydro- and mechanotherapy and massage had accomplished already a striking amelioration of symptoms.

In conclusion Dr. Towle exhibited by means of the epidiascope, numerous photographs of the effects of the new Barthe treatment of burns. The results were evidently remarkable.

Charles J. White, *Secretary.*

## Book Review.

*A Text Book of Human Physiology.* By Albert P. Brubaker, A.M., M.D. Fifth Edition. Philadelphia: P. Blakiston's Son and Company. 1916.

The fifth edition of this well-known text book again asserts that "it is primarily intended for students of medicine and practitioners who desire to keep in touch with the progress of physiology." It may be gravely questioned how far either of these groups can be benefited by the book.

It is fair for the medical student to demand the latest developments in each science that he enters, and this without undue theoretical discussion; but it is also most untrue to the present advancing position of medicine if the rapidly changing character of each of the fundamental branches is not pointed out, and the necessity for the development of a really progressive tendency strongly emphasized. This book, however, is one of the latest examples of the old combination of anatomy and physiology and forms a sorry initiation to the physiology of medicine of today. But disregarding the general tenor of the text, we may turn to very specific defects. One reads seventy-five pages upon the physiology of muscle and nerve without finding discussion of the all-important work of Keith Lucas, A. V. Hill, Adrian, or Fletcher and Hopkins, whereby we have had the application of the "all or none" principle to muscle and nerve, and the mechanism of heat and acid production in muscle so beautifully amplified. Four pages are devoted to reflex action, with no reference to the work of Sherrington, by whose efforts this field in physiology has been so enormously widened.

If we turn to another subject, respiration, we find an equal degree of inadequacy. One is informed that "The determination of the composition of the alveolar air is extremely difficult"; a manoeuvre which is being demanded daily of house officers in our large hospitals. And given such analyses, one is given no notion of how they might indicate blood conditions at the moment of sample collection.

The practitioner who wishes now and then to refresh himself upon some isolated point or to get the latest views upon the physiology of his especial interests will need to exercise great leniency to find satisfaction from this book. In the first place he will be faced by a thoroughly inadequate index. Let him look up such a subject as inhibition or inhibitory nerves or endeavor in any way to get from the index a clue to matter on the subject and he will look in vain. Try reciprocal innervation, prothrombin, plethysmograph, colloids, and a host of others which may arise, and in most instances the index will be found entirely lacking. It apparently occupies its position at the end of the book as a sacrifice to custom, not to utility.

The practitioner also may be conceived to require text-book information as a starting point for further incursions into the literature; but, as may be expected, no references are presented, and indeed very little modern physiology is touched upon.

Illustrations are clear, but too frequently anatomical, thus taking space which might well have been devoted to the science which the book is intended to illuminate.

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126 Massachusetts Ave., Corner Boylston St., Boston, Massachusetts.

## FRANCIS HENRY BROWN.

FRANCIS HENRY BROWN, senior past editor of the BOSTON MEDICAL AND SURGICAL JOURNAL, died at the Boston City Hospital on May 16, 1917, as the result of a distressing street car accident. He was the oldest survivor of a group of men of a former generation in medicine, whose activities early contributed in a marked degree to the development of medical journalism in America, and extended quietly in many fields of usefulness through a long and busy life.

Dr. Brown was born in Boston, on August 8, 1835, the son of Francis Brown and Caroline Matilda Kuhn. After obtaining his preliminary education at the Boston Latin School he received from Harvard the degrees of A.B. in 1857 and A.M. and M.D. in 1861. From 1857 to 1859 he was assistant instructor in chemistry at Harvard. At the outbreak of the Civil War he entered the U. S. Army, in which he served as assistant surgeon from 1862 to 1864. Later he was for a time assistant surgeon in the U. S. Public Health and Marine Hospital Service.

At the close of the Civil War, Dr. Brown returned to Boston, where he became a founder and surgeon of the Children's Hospital. He always retained an active interest in this institution and served as its secretary until his death. He was also for a time aural surgeon at the Boston City Hospital, surgeon to the Boston Dispensary from 1866 to 1872, to St. Joseph's Home in 1869 and 1870, and to St. Elizabeth's Hospital from 1880 to 1882. He was at various times president of the Suffolk District Medical Society, treasurer of the Obstetrical Society of Boston, secretary of the Class of 1857 of Harvard College, and a member of the American Academy of Medicine, Massachusetts Medical Society, Boston Medical Library Association, American Public Health Association, American Library Association, Massachusetts Medical Benevolent Society and other organizations. He had served as president of the Massachusetts Society of Sons of the American Revolution, and of the St. Botolph and Unitarian Clubs. He had also been secretary of the Bunker Hill Monument Association. He was the author of "Harvard University in the War of 1861-65" and "The Second Church of Boston."

Dr. Brown's connection with the BOSTON MEDICAL AND SURGICAL JOURNAL began in July, 1870, when he became its editor in succession to Dr. Luther Parks, father of the late Dr. Edward L. Parks of this city. In his editorial valedictory Dr. Parks referred to Dr. Brown as one "whose ability as a writer, enterprise and impartiality cannot fail to secure him success." In his own first editorial on July 7, 1870, Dr. Brown wrote that it was his hope "to maintain the JOURNAL where its previous conductors have striven to place it—on the one hand, as the exponent of medical science for the New England States; on the other, as the messenger, through judiciously selected professional literature, of all that is new and valuable in medicine, between the outside world and our own number. With the necessity of accomplishing these two ends in a satisfactory manner, the editor's position is by no means a sinecure. In his intercouse with his brethren, it is his duty to watch well the public pulse; to study thoroughly the body corporate of the profession, both in health and, as it too often manifests itself, in disease; and, with all the wisdom he can control, so to direct the medical mind as best to serve the profession. An able journal should make public opinion, not alone follow it." Finally, in summarizing what he regards as the characteristics of a good medical journal, Dr. Brown emphasized "an advanced and enlightened estimate of the wants of the medical profession, so far progressive as to seek and grasp the new and good from whatever reputable source, so far conservative as to shrink from a too speedy recognition of possible fallacies; a spirit of independence, without any adherence to factions, schools or individuals; which shall freely admit to the JOURNAL worthy articles, useful information or fair discussion on any proper subjects; but which shall as unreservedly reject personal allusions and all matter which shall seem unfitted for our columns."

The duties and ideals of an editor could hardly have been better outlined. How well Dr. Brown lived up to them is evidenced by the dignity and character of the JOURNAL during his administration. He retired from active editorship at the close of the year 1872, but throughout the remainder of his life continued to maintain a warm personal concern in the affairs of the JOURNAL.

For a number of years Dr. Brown had been retired from medical practice, but, unknown to many, had continued an active participation in the affairs of many public charitable institutions, notably the Boston Floating Hospital and the Massachusetts Charitable Fire Society.

Dr. Brown was twice married, in 1861 to Miss Louisa Beckford Eaton of Salem, and in 1871 to Miss Mary Sherwood Wood of Auburn, N. Y., who died in 1912. He is survived by one daughter, Mrs. H. Turner Hodgdon of Cambridge, and by a son, Mr. Louis Francis Brown, business manager of the Burton Holmes Travelogues.

Nearly 82 years of age when he died, Dr. Brown had been for many years a familiar, quiet and benign figure in the older medical profession of Boston, pleasant and sociable to meet, seeking always to do good for others, unostentatiously. In him, the JOURNAL, the many societies with which he was connected, and all those who were privileged to know him personally have lost by death a most kindly, loyal and benevolent friend.

## TUBERCULOSIS AND THE WAR.

EVERY physician should read the report of Dr. Herman M. Biggs, which appeared in a recent number of the *Survey*, describing the situation which now exists in France with regard to tuberculous soldiers. For many years France has directed her tuberculosis campaign toward the prevention of tuberculosis among children. While it is generally recognized that this is an important, if not perhaps the most important part of any tuberculosis campaign, nevertheless, for many years to come, adequate provision must be made for adult consumptives. This France has neglected to do, with the result that at present the country is overwhelmed with a vast number of tuberculous soldiers, with utterly inadequate facilities for their care. Although this country is vastly better prepared with institutions for the tuberculous than France ever was, the fact remains that unless these institutions are made available and plans are formulated for increasing their capacity and for cutting all unnecessary red tape, we shall find ourselves facing a situation that will not, it is to be hoped, be as bad as that which now exists in France, but which will be, none the less, a serious one.

At a recent meeting of the National Tuberculosis Association this subject was considered, and the services of the Association offered to the Federal Government to assist in tuberculosis preparedness. In this State, the Board of Trustees of Hospitals for Consumptives, in charge of the four state sanatoria, at North Reading, Lakeville, Westfield and Rutland, comprising over 1000 beds, has already taken up this matter, and is preparing detailed plans whereby this number of beds can be greatly increased and perhaps doubled, if necessary.

Perhaps of greater importance than increasing the number of beds, however, is the question of discovering active cases of tuberculosis among the recruits and among those already in the army, and the taking of definite measures to provide adequate treatment for these cases, and thus to prevent their infecting others, and becoming a burden on the government and on the community later.

There are those who have publicly stated that the open-air life which the soldier or the sailor is supposed to lead is beneficial for the man with incipient tuberculosis, and that the discovery of an early process should by no means be sufficient reason for his rejection. It is to be doubted if this statement was ever true, and certainly in modern warfare it is very far removed from the truth. While a certain number of these men with an early and inactive lesion may become fit for active duty later on, by far the majority should not be allowed to enter active service, but should be left at home to fill the necessary and less arduous duties of civil life. It is to be hoped, therefore, that every physician, whether or not actively connected with the Army or the Navy, will read Dr. Biggs' report and take to heart the lesson he has there only too plainly written.

## THE PASSING OF A FAMOUS PHYSICIAN.

Since the ambitious rearers of the tower of Babel scattered over the earth's surface there has been a confusion of tongues, according to the Holy Writ. The present great war itself is ascribed by some, indirectly at least, to the lack of national sympathy engendered by failure to understand one another's ideals and aims. The average well-educated man, besides speaking one language well, has a more or less cursory acquaintance with two or three others. Now and then we meet men whose inclinations turn that way, and who have learned four or five tongues. Until seven or eight are mastered, however, we do not refer to them as linguists. And even then there are hundreds of languages spoken by millions of people of which such a linguist would not comprehend the slightest trace.

Naturally this condition has given rise to attempts at remedying it. There have been many universal languages, but the only one to which any large measure of recognition has been given is Esperanto, which was invented, curiously enough, by a native of a country whose own national existence was so stormy,—Poland. Moreover, although physicians have been accused of speaking a language which no layman can hope to fathom, Esperanto was the brain-child of a physician, Dr. Lazarus Ludwig Zamenhof.

Dr. Zamenhof died on Saturday, April 21, at the age of 57. He had always been delicate physically, but an intellectual giant. At the age of four he read and wrote well. He studied medicine at Moscow University, receiving his degree in 1885, when he returned to Warsaw and became an ophthalmologist. It seems probable that the polyglot population of that capital directed his attention to the need for a universal language; at any rate, two years later he published the first text-book of Esperanto. After many difficulties it forced its way to notice, and in 1905 the first international congress was held at Boulogne-sur-Mer. Since that time annual meetings have been held, attended by representatives of all nations, and the language has gained for itself an enthusiastic following. There has been even a medical Esperanto association, *Tutmonda Esperantista Kuracista Asocio* and a medical periodical, *La Kuracisto,* the publication of which latter has been interrupted by the war.

With the death of Dr. Zamenhof passes away another of the great physicians. Perhaps in later years the nations will gather together in amicable congress and discuss international differences in Esperanto. Perhaps we shall see a United States of the World who shall speak this language, and only delve into English, French and German as our college youths do now into Latin, Hebrew and Greek. When this millennium arrives the name of Zamenhof may well be canonized. It is but one instance more of the love of humanity inherent in the medical profession, one more case where, in addition to his daily relief of individual suffering, the physician has occupied himself with a task looking to the greatest good of all.

## THE MASSACHUSETTS MEDICAL SOCIETY.

In another column of the present issue of the Journal is published, according to custom, the program of the annual meeting of the Massachusetts Medical Society, at which, next week, will be observed its one hundred and thirty-sixth anniversary. The Society assembles this year under unusual conditions. Not since the Civil War have so many of its members been absent on service for their country. The regular exercises and routine of the meeting will be carried out; but the shadow of the great war will be over the minds of all. The names of those who are absent on service, it will be observed, are denoted on the program by asterisks. It is the heartfelt hope of all that none of these may prove prophetic, and that, by another season, all those who bear them may have returned to us in safety, not for many years to become *stelligeri*.

## MEDICAL NOTES.

**Manufacture of American Salvarsan.**—There is a great deal of interest now being manifested in Congress regarding the abrogation of the patents on salvarsan. It is most desirable to declare them void or to enact such legislation as would relieve the situation permanently and not simply during the period of the war.

The patents on salvarsan are held by a German firm. The price is $4.50 per dose of 6 decigrams. If American chemists were permitted to make it, the drug could be sold after a short time for 50 cents or less.

Physicians should write to all of the Congressmen and Senators from their State and urge them to take some action.

J. M. T. Finney,
George Walker.

**Prevalence of Meningitis.**—The current prevalence of epidemic cerebrospinal meningitis in the United States is noted in the weekly report of the Public Health Service for May 11, 1917. From March 1 to May 8, the total number of cases reported in those states where the disease is extensively present, is as follows: Pennsylvania, 284; Minnesota, 169; Connecticut, 148; New York, 123; Ohio, 79; Illinois, 73; Kansas, 40; Wisconsin, 36; and Massachusetts, 30.

**Hospital Bequest.**—By the will of the late James C. Stodder, for some time a resident of Boston, the Eastern Maine General Hospital is left one-sixth of the estate above the sum of $50,000, which is left to relatives.

**Health Department Scores a Victory in Court.**—The New York Disposal Corporation, operator of the garbage disposal plant on Barren Island, was convicted in the Court of Special Sessions, Borough of Brooklyn, on Monday, May 14, 1917, for a violation of Section 212 of the Sanitary Code, which prohibits the escape and discharge of offensive or noxious odors from any building, vessel, or place in the city of New York, to the detriment and annoyance of any person or persons not being therein or thereupon engaged.

The action was instituted by the Department of Health as the result of complaints of citizens residing in the Borough of Queens, supplemented by observations and evidence obtained by Inspectors of the Department of Health covering a period of several months. The plant was operated for the purpose of disposing of the city's garbage and waste material under contract with the city authorities. Through careless and negligent operation, offensive and noxious odors were discharged, and these contaminated the air to such an extent that the residents of the Borough of Queens, particularly the Rockaway Peninsula, were seriously inconvenienced and annoyed. Evidence was submitted to the court to show that the defendant corporation was guilty of maintaining a public nuisance. The court found the defendant guilty and imposed a fine of one hundred dollars. This is the first successful prosecution of the operator of the garbage plant on Barren Island.

**London Death Rates in March.**—Statistics recently published show that the total death rate of London in March was 18.2 per thousand inhabitants living. Among the several districts and boroughs, the highest rate was 23.6 in Bermondsey, a crowded southern slum, and the lowest was 11.8, in Hampstead, an open suburb on the north.

**St. Mary's Hospital, Rochester, Minn.**—The twenty-seventh annual report of St. Mary's Hospital, Rochester, Minn., records a total number of patients for the year 1916 of 8,750. The total number of operations performed was 10,209. The death rate was 1.9%. The death rate for abdominal operations was 2.4%, and the total number of abdominal operations was 5345.

### WAR NOTES.

**Ambulance Units.**—To meet the urgent need of facilities to care for the wounded abroad, the Government is organizing one hundred and twenty ambulance companies throughout the country. These will include 18,000 enlisted men who will be sent to concentration camps, to be designated later, and put through a course of training. It is understood that the only channels through which these men can be raised are the physicians who are recruiting the ambulance and field hospital companies. Officers will probably be chosen from among the 18,000 recruited. Surgeon-General Gorgas has the matter in charge and will designate the concentration camps and other details later. Mechanics, chauffeurs, farriers, and other workmen are desired, as well as men who have had experience in hospital and orderly work.

**Gifts of Rockefeller Foundation.**—There was announced at a meeting of the board of directors of the Rockefeller Foundation a new donation from John D. Rockefeller of $25,000,000. The resources, therefore, of the Foundation amount to $125,765,000. Seventy thousand dollars was appropriated for the maintenance of the school for hygiene and public health of Johns Hopkins University during its first fiscal year, to start July 1. The Foundation has already contributed $167,000 towards the building of the school, which is practically complete. Twenty-five thousand dollars was appropriated toward a total outlay of $160,000 for the financing of a mobile motor hospital unit on the Italian plan, to be operated by the medical school of Yale University for experimental use in France. An amount, at present beyond estimation, because of the uncertainty existing regarding the duration of the war, will be spent giving aid to the Allies, especially France.

AID OF THE ROCKEFELLER FOUNDATION TO FRANCE.—The Rockefeller Foundation has appointed Dr. Livingston Farrand, president of the University of Colorado, and well known as an authority on tuberculosis, to go to France and undertake a campaign against tuberculosis.

"It is expected that the work which at present is being done for tuberculous soldiers will be extended to include a comprehensive plan looking to the control of tuberculosis throughout France. The work will be carried on under the supervision of a French central committee and local committees which are being organized throughout provincial France. Aside from a small group of Americans who will be sent to France at an early date, the personnel of the organization will be French."

Dr. Farrand, formerly for many years secretary of the National Association for the Study and Prevention of Tuberculosis, with one or two assistants, expects to sail for France within the next few weeks.

ORGANIZATION OF NEW ENGLAND UNITS.—Seven ambulance and seven field hospital companies will be recruited in the Northeastern Division and Major James F. Hall, M.C., assistant to the department surgeon of this district, has been ordered to organize the companies. The work of raising the companies will be done by physicians. Dr. Charles R. Morgan of Boston, formerly in the Medical Corps of the Massachusetts National Guard, has agreed to raise a field hospital company. He will be given command of the company with the rank of major in the medical section of the Officers' Reserve Corps. The maximum authorized strength of an ambulance company is 180 men and that of a field hospital company, 80 men. The former is commanded by a captain, who has four other officers, either captains or lieutenants, under him. The latter is commanded by a major, who has five officers, either captains or lieutenants. Men with training in hospital work or as drug clerks, or with similar experience along medical lines, are especially desired and will be given rank as non-commissioned officers. The Northeastern Department is authorized to recruit 2736 privates, 1st class, while the number of other privates is unlimited. Those secured in excess of the required number for each company will be detailed to the Medical Corps.

The physicians thus far selected, who will probably command the companies they raise, with the ranks of captain for the ambulance commands and majors for hospitals, are: Hospital companies, Dr. Charles R. Morgan, Dr. Henry C. Marble, Dr. Dana Drury, Boston; Dr. George Osgood, Cohasset, Mass.; Maj. Bial F. Bradbury, Togus, Me.; Dr. Howard W. Beal, Worcester; Dr. Otto Wiedman, Hartford, Ct.; Dr. Edmund Russell, Waterbury, Ct.; Dr. H. R. Giddings, Boston; ambulance companies, Dr. Howard DeF. Lockwood, Meriden, Ct.; Dr. William E. Hamlin, Waltham.

"Men belonging to these organizations are intended for service in France as soon as they have become properly trained. There are opportunities for druggists, chauffeurs, hospital orderlies, clerks, stable men, mechanics, cooks and drivers. Those with previous experience as orderlies in hospitals are particularly desired. The rates of pay as recently authorized by Congress are as follows: First enlistment, master hospital sergeant, $81; hospital sergeant, $71; sergeant, first-class, $56; sergeant, $44; corporal, $42; cook, $38; horseshoer, $38; saddler, $33; mechanic, $33; farrier, $33; private, first-class, $33; private, $30.

"A limited number of men who possess the necessary educational qualifications and who have a knowledge of pharmacy are eligible to be enlisted in the grades of non-commissioned officers up to and including sergeant, first-class, which carry increased pay and increased responsibilities, upon the approval of the commanding general, northeastern department."

NEEDS OF FRENCH MEDICAL STAFF.—H. H. Harjes of Morgan, Harjes and Company, has cabled to the American Red Cross some of the most pressing needs of the French medical establishments. Most earnestly desired are fifty ambulance sections, each consisting of twenty-three Ford cars and two White trucks and men to drive them; five Red Cross trains with staffs of doctors and nurses; 200 trucks; 300 two-wheeled horse carriages, 1000 rubber-tired wheelbarrows for carrying stretchers. The French need 3000 tents.

Besides drugs which are specified a request is made for from 40,000 to 100,000 cases of condensed milk, 200,000 blankets, 30,000 woolen pea jackets, 30,000 pairs of woolen trousers, 400,000 pairs of woolen socks, 20,000 pairs of leather slippers.

Mr. Harjes' cable gives also many other needs, such as quantities of oil cloth, waterproofed cloth, cocoanut mats, eating utensils, linoleum and surgical gloves. The French would like 5000 nurses, either men or women, but not less than 1000 men and, if possible, 5000 men as stretcher-bearers and workers in the hospitals—not to speak of 10 complete staffs of doctors, assistants and nurses.

Raising of Immense Fund for Red Cross.—The new Red Cross War Council, of which Henry P. Davison is head, held its first conference on May 24, and made plans for raising a fund of $100,000,000. The fund is to be used not only for Red Cross relief for Americans, but also for the destitute in the foreign war zones, whatever their nationality. Ian Malcolm of the British Official Mission addressed the conference on the needs abroad; Frederick Walcott, a member of the Rockefeller Commission recently returned from Poland, spoke of Polish needs; and John H. Gade of the Belgian Relief Commission, told of the needs of Belgium.

The actual machinery of the great money-raising campaign, according to announced plans, will be in the hands of Charles S. Ward, International Young Men's Christian Association secretary, who also is secretary of the War Finance Committee. The campaign in New York City will be directly in charge of Cornelius N. Bliss, Jr. The meetings are being presided over by Seward Prosser of New York.

Former President Taft conferred with representatives of the various Red Cross chapters. Herbert C. Hoover presented recommendations for the rehabilitation of Northern France.

Mr. Davison explained that the $100,000,000 to be raised was a beginning in an intensive campaign in which committees of prominent business men are to be chosen in each city. The work will be carried on with all possible vigor, so that American assistance to the devastated districts of Europe may be offered at once. Mr. Davison also explained the plan in detail today to members of the finance committee of the Red Cross, including B. T. Stotesbury of Philadelphia, F. L. Higginson of Boston, and Julius Rosenwald of Chicago.

Training Camps for Medical Officers.—It is announced that new army medical schools will be established at Fort Riley, Kansas; Fort Benjamin Harrison, Ind.; Fort Oglethorpe, Ga.; and possibly other places where the thousands of doctors who will be needed when the armies shall be mobilized, may be trained. The camps will occupy the same relation to the medical section that Plattsburg and other camps occupy to the line service. Members of the medical section of the Officers' Reserve Corps, which numbers about two thousand, will be ordered to attend. About five thousand doctors are needed now, and probably the services of ten thousand more will be needed by the end of the year.

Three new divisions of the Army Medical Corps have been created. They are the divisions of sanitary inspection, under Col. Frederick P. Reynolds; the division of hospitals and hospital construction, under Col. James B. Clennan, and the division of medical military instruction, under Col. Edward L. Munson, all three divisions being under the general supervision of Col. Henry R. Birmingham.

Each of these camps will accommodate 600 doctors, and the three in Kansas, Georgia and Indiana will be ready June 1. The first four weeks will be devoted to instructing the doctors as to duties of enlisted men of the hospital service, the second month to medical officers' courses, and the third to field work, which can be omitted if the emergency requires. The doctors must, in turn, train 50,000 enlisted men in hospital work.

The first 1800 doctors will come from the Medical Reserve Corps and the National Guard. An ambulance company and field hospital will be established at each camp, and later special schools for enlisted men of the Hospital Corps will be added.

The hospital division of the Medical Corps is working out plans for the 32 divisional hospitals, one to be established at each of the divisional training camps for the new armies. Each of these will be able to care for 1000 patients, and in addition a number of clearing hospitals for more serious cases and receiving hospitals at coast points also will be established.

Reception in England of Base Hospital No. 4.—Base Hospital No. 4, made up of physicians and nurses from Cleveland, Ohio, were accorded a warm welcome on their arrival in England. About twenty-five physicians and sixty nurses were received by the King and Queen in Buckingham Palace. The simple but impressive ceremony took place on a terrace facing the gardens of the palace. A canopy had been erected over the terrace, and on the grounds in front of this the American detachment was drawn up at attention before the arrival of the King and Queen. After the members of the corps had taken their positions, the members of the royal family stepped from the palace and stood on the terrace, surrounded by a group including the American ambassador, Mrs. Page, and nearly all the members of the royal household. The King stepped forward, received and returned a salute, and spoke as follows:

"It is with the utmost pleasure and satisfaction that the Queen and I welcome you here today," he said. "We greet you as the first detachment of the American Army which has landed on our shores since your great republic resolved to join in the world struggle for the ideals of civilization.

"We deeply appreciate this prompt and generous response to our needs. It is characteristic of the humanity and chivalry which have ever been evinced by the American nation that the first assistance rendered the Allies is in connection with the profession of healing and the work of mercy."

When he had concluded, the King, the Queen and Princess Mary descended the steps, and the surgeons and nurses were presented.

Dental Reserve Corps.—At the classes held at the Forsyth Infirmary for the training of dental surgeons, more than 450 dentists presented applications. The course has, therefore, been divided into three one-week periods. Harold de W. Cross, D.M.D., is director of the course, which includes military dental and oral practice under the instruction of an army dental surgeon.

Medical Graduates in Germany.—In the German academic year 1912-13, 1447 licenses to practise medicine were granted. In the year 1913-14, owing to the premature graduation of many medical students at the outbreak of the war, the number of licenses rose to 3822, but in 1914-15 it fell to 1038. In 1913-14 the number of women licensed to practise medicine was 148, in 1914-15 it was 172. In 1908-09 the number of women medical students in Germany was 334; in 1915-16 it was 1229.

Orthopedic Workshops in Germany.—An article by Dr. Blind of Strassburg, in the *Medizinische Klinik* (No. 21, 1916) describes the establishment throughout Germany of curative workshops in conjunction with orthopedic hospitals for the rehabilitation and employment of crippled soldiers. "In his own hospital he has added to the medico-mechanical department a workshop, so that surgical and orthopedic treatment may be combined with work for the body and mind. He had set his face against the output of gimcracks, such as glasses plastered over with cigar wrappers and ash trays of gilded glass; the task he first set men with crippled fingers was basket plaiting, but, as he foresaw that an army of crippled basket makers would find an insufficient market for their wares after the war, he gave them other tasks as they became more nimble, with the result that his patients provided their own splints, artificial limbs, and even metal operating tables."

Progress of Parker Hill Hospital.—The construction of a hospital on Parker Hill, Boston, for the care of soldiers wounded in limbs and joints, is progressing. While the Hospital will be under Government auspices, funds are desired from private sources to insure the greatest efficiency of the project. Contributions may be sent to Charles S. Rackemann, Ames Building, Boston, treasurer of the fund. This is one of the two base orthopedic hospitals in the country, the other being at Washington, D. C.

Base Hospital No. 1.—Red Cross Unit No. 12, since its departure for France, is known as Base Hospital No. 1. It left Chicago on May 16, and is composed of two hundred forty-seven persons, of whom twenty-four were physicians, sixty-five were nurses and one hundred fifty-three were enlisted men. Dr. Fred A. Besley is director of the unit. Many of the men were students at Northwestern University and the University of Chicago.

Death of Two Nurses.—By an extraordinary and deplorable accident, two nurses of the Red Cross unit known as Base Hospital No. 1, bound for France, were killed by the firing of one of the guns on the ship carrying them to Europe. A brass cup which fits over the brass shell containing the powder, when the charge was exploded, flew back to the ship in boomerang fashion, hitting the stanchion where three nurses were sitting. The flying pieces of the stanchion instantly killed Mrs. Edith Ayres and Miss Helen Burnett Wood, and wounded Miss Emma Matzen. The ship returned to port with the bodies of the nurses. This manner of sealing the cartridge cases of the powder charges has been used in the navy for many years, and the possibility of such an accident had never been conceived.

Arrival of Red Cross Hospital No. 5.—The safe arrival of Red Cross Hospital No. 5, in England, was announced on May 22. This unit was sent from Boston under the command of Maj. Robert U. Patterson of the army medical corps, with Dr. Harvey Cushing as director.

Dentists' Services Completed.—The task of putting in order the teeth of the State troops since mobilization was begun, which was undertaken by volunteer dentists working in clinics and in their private offices, is practically completed. Since the first call for soldiers came, the dentists have examined 3400 soldiers' mouths and have performed about 15,000 operations. From the dental examinations made for the soldiers, it developed that 75% of all the soldiers now in military service in Massachusetts required dental services.

War Relief Funds.—On June 1 the totals of the principal New England war relief funds reached the following amounts:

| | |
|---|---|
| Belgian Fund | $609,975.28 |
| French Wounded Fund | 230,069.99 |
| French Orphanage Fund | 100,362.23 |
| Surgical Dressings Fund | 94,703.97 |
| Edith Cavell Fund | 2,400.00 |
| French Musicians' Fund | 1,419.92 |
| French War Dogs' Fund | 354.25 |

## BOSTON AND MASSACHUSETTS.

Week's Death Rate in Boston.—During the week ending June 2, the number of deaths reported was 271 against 239 for the same period last year, with a rate of 18.30 against 16.39 last year. There were 42 deaths under one year of age against 35 last year, and 85 deaths over 60 years of age against 74 last year.

The number of cases of principal reportable diseases were: diphtheria, 74; scarlet fever, 23; measles, 238; whooping cough, 12; typhoid fever, 6; tuberculosis 35.

Included in the above were the following cases of non-residents: diphtheria, 13; scarlet fever, 2; tuberculosis, 3.

Total deaths from those diseases were: diphtheria, 7; whooping cough, 2; typhoid fever, 1; measles, 3; tuberculosis, 17.

Included in the above were the following deaths of non-residents: diphtheria, 1.

HOSPITAL BEQUEST.—By the will of the late George W. Moses of Brookline, the Boston Floating Hospital is the recipient of the sum of $500.

GRADUATION OF NURSES AT FENWAY HOSPITAL.—The graduation exercises of the training class at Fenway Hospital was held on May 22. There were seven graduates. Dr. James T. Hepburn presented diplomas and Drs. Roy H. Gilpatrick, C. C. Carroll, William E. Preble, John D. Adams, Harry W. Goodall and Nathaniel R. Mason made addresses.

INCREASED MEMBERSHIP IN RED CROSS.—The Boston Metropolitan Chapter, American Red Cross, is desirous of raising its membership to fifty thousand. It already has over 40,000, and efforts are being made through local committees to conduct successful campaigns for new members in the suburbs.

NEW WINCHESTER HOSPITAL.—A new hospital, built by the Winchester Visiting Nurse Association, is opened in Winchester. Provision is made for fifty beds, two five-bed wards, six two-bed wards, eight private rooms, four free beds, and a children's ward and nursery, with a maternity department complete in every detail. The nurses' home, a gift from the Andrew C. Slater estate, contains twenty-five rooms. At the opening of the hospital there will be on duty a staff of twelve nurses under the superintendent, Miss Annie Gillett. Patients will be attended at the hospital by physicians of their own choice.

**MALDEN HOSPITAL TRAINING SCHOOL.—A class of nurses was graduated recently from the Malden Hospital Training School. At the exercises Professor Anne H. Strong of Simmons College and Dr. Robert H. French of Malden, made addresses.**

## Obituaries.

### CHRISTOPHER SEYMOUR, M.D.

CHRISTOPHER SEYMOUR, M.D., died at his home in Northampton, Mass., of heart disease, May 19, 1917, aged 74 years. He was born in Hinsdale, Mass., and was educated at the University of Michigan Medical School, where he took his degree in 1869. He settled in practice that year in Northampton, joining the Massachusetts Medical Society, and had practised there since, being retired in 1908.

An important work undertaken by Dr. Seymour, aside from his practice, was the development of the Cooley Dickinson Hospital, which was largely under his direction for many years, while he was president of the board of trustees. The erection of the present commodious and modern building was chiefly due to his vision of the large future for the institution, and his courage and energy in advancing the enterprise.

Dr. Seymour was for 30 years medical examiner for Hampshire County, and was a member of the Hampshire District Medical Society.

He is survived by two daughters, Miss Mary H. Seymour of Northampton and Mrs. Fannie Hulse, wife of Rev. Hiram R. Hulse, Episcopal Bishop of Cuba.

### HENRY PINCKNEY FROST, M.D.

HENRY PINCKNEY FROST, M.D., Superintendent of the Boston State Hospital, Dorchester, died at the Massachusetts General Hospital May 23, 1917, of pneumonia, aged 48 years. The son of Henry and Sabra J. Walker Frost, he was born in Charleston, S. C., and was graduated from the Maryland University School of Medicine in 1889. After serving as house officer at the city institution at Ward's Island, New York, he was assistant superintendent at the Willard State Hospital for the Insane, at Willard, N. Y., and occupied a similar position at the Buffalo State Hospital for thirteen years. He became superintendent of the State Hospital in Dorchester in 1909. Dr. Frost was a member of the American Medical Association, the American Neurological Association, American Society of Psychiatry, New England Society of Psychiatry and Neurology, and the Massachusetts Medical Society. He is survived by his widow, who was Miss Margaret Johnson of Virginia, and by three children.

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United States Senator Harry Lane, M.D., of Oregon, died at San Francisco on May 25. He was a native of Oregon and was born in 1855. In 1876 he graduated from Willamette University, at Salem, Oregon, and became a practising physician at Portland. He entered the senate in 1913.

# The Massachusetts Medical Society.

## PROGRAM OF THE ONE HUNDRED AND THIRTY-SIXTH ANNIVERSARY.

The one hundred and thirty-sixth anniversary of the Massachusetts Medical Society will be observed on Tuesday and Wednesday of next week, June 12 and 13, in Boston. Following is the entire body of the program of exercises on both days:

### GENERAL INFORMATION.

A Bureau of Information will be maintained by the Committee of Arrangements during Tuesday and Wednesday in the lobby of the Copley-Plaza Hotel, the headquarters of the Society during the Annual Meeting.

All Fellows are requested to register and procure their dinner tickets as early as possible at the Bureau of Information.

The Annual Dinner and all General and Section Meetings will be held at the Copley-Plaza Hotel. During both days of the meeting the facilities of the hotel will be at the disposal of the members of the Society, and parking space for automobiles, with supervision, will be provided.

Fellows of the Society desiring to spend Tuesday or Wednesday night in Boston can secure rooms by communicating in advance, either with the chairman of the Committee of Arrangements or directly with the hotel.

The Boston Medical Library, 8 The Fenway, will be open for the inspection and use of the Fellows during the days of the meetings.

The Harvard Medical School, 240 Longwood Avenue, and the Tufts College Medical School, 416 Huntington Avenue, will be open for inspection by the Fellows both Tuesday and Wednesday.

### June 12, 1917.

### TUESDAY MORNING.

There will be clinics and operations on the surgical services, and ward visits on the medical services, at the following hospitals:

Massachusetts General Hospital.
Bigelow Surgical Amphitheatre.
10.00 a.m. to 11.30 a.m.

1. Food Idiosyncrasies.—Dr. F. B. Talbot.
2. The Relation of Foreign Proteins to Asthma.—Dr. F. M. Rackemann.
3. Diabetes.—Dr. F. G. Brigham.
4. Pulmonary Abscess.—Dr. F. T. Lord.
5. The Value of Roentgen Rays in Diagnosis of Lesions of the Heart and Aorta.—Dr. G. W. Holmes.
6. Chronic Abdominal Pain; Study of 307 Cases.—Dr. W. H. Smith.
7. A Group of Cases.—Dr. D. L. Edsall.
8. Psoriasis.—Dr. H. P. Towle.
9. Madura Foot.—Dr. C. A. Porter.
10. Lilienthal's Operation for Acute Empyema.—Dr. C. C. Simmons.

11.30 a.m.
Operations by the Staff.

At the Boston City Hospital.—Operative clinics in the Surgical Amphitheatre and in the Gynecological Operating Room at 10 o'clock a.m., and visits and exhibition of cases in the Medical Wards at 10 o'clock a.m.

At the Peter Bent Brigham Hospital.—Operations in the Surgical Building, 9 to 12.30. Demonstrations in the Main Amphitheatre by members of the Medical and Surgical Staff, 11 to 2.30.

At the Carney Hospital.—A Surgical, a Gynecological and an Orthopedic Clinic in the operating rooms. The Medical Service will make a ward visit.

At the Children's Hospital.—Dr. John Lovett Morse, A Visit in the Medical Wards, 9.30 to 10.30. Dr. Robert W. Lovett, Demonstration of Examination and Methods of Treatment in the Infantile Paralysis Clinic, O. P. D., 10.30 to 11.30. Dr. James S. Stone, Surgical Clinic, Amphitheatre, 11.30 to 12.30.

At the Infants' Hospital.—A ward visit by members of the Staff at 10.30 a.m.

At the Boston Lying-in Hospital.—Drs. Huntington and Swift, Demonstration and Methods of Prenatal Care, 10.30 a.m. Dr. Foster Kellogg, Demonstration of Anesthetic Examination of Border Line Pelves, 10.30 a.m. Drs. Torbert and Kellogg, Ward Visit and Operations as Offered by Material in Hospital at Time, 10.30 a.m. Miss Harrington, Supt. of Nurses. Demonstration of Breast Binder, 11 a.m.

At the Robert B. Brigham Hospital.—Clinics will be held and demonstrations given.

At the Free Hospital for Women, Brookline. Operations by Dr. W. P. Graves: Plastic and Coeliotomy for Retroversion, 7.30 a.m.; Hysterectomy for Fibroid, 8.15 a.m.; Amputation of Cervix and Coeliotomy for Procidentia, 9 a.m.; Plastic for Repair of Complete Laceration of Perineum, 10.00 a.m. By Dr. R. G. Wadsworth: Plastic and Coeliotomy for Retroversion, 7.30 a.m. By Dr. F. A. Pemberton: Hysterectomy for Fibroid, 9 a.m.; Plastic and Coeliotomy for Retroversion, 10 a.m.; Plastic and Coeliotomy for Prolapse, 11 a.m.

Annual Meeting of the Supervisors.
Foyer, Copley-Plaza Hotel.
11.30 o'clock.

### TUESDAY NOON.

Annual Meeting of the Council.
Foyer, Copley-Plaza Hotel.

### TUESDAY AFTERNOON.

Meeting of the Section of Medicine.
Foyer, Copley-Plaza Hotel.
2.30 o'clock.

*Officers of the Section of Medicine:*
Dr. **Brace W. Paddock**, Pittsfield, *Chairman.*
* Dr. **James H. Means**, Boston, *Secretary.*

Symposium on Electrocardiography.

1. The Electro-cardiogram in Normal Health.—Dr. Horatio B. Williams, New York.
2. The Clinical Significance of Changes in the Individual Electro-cardiogram.—* Dr. Paul D. White, Boston.
3. Some Clinical Features of Auricular Fibrillation. —Dr. Henry A. Christian, Boston.
4. The Nature of Certain Changes Observed in the Electro-cardiogram.—Dr. Alfred E. Cohn, New York.
5. Acute Carditis.—Dr. Frank T. Fulton, Providence, R. I.
   Discussion by Dr. Samuel A. Levine, New York; Dr. M. A. Welbourn, Boston.
6. The Treatment of Pernicious Anemia.—Drs. George R. Minot, Boston; * Roger I. Lee, Cambridge.
   Discussion by * Dr. Beth Vincent, Dr. R. C. Larrabee, Dr. J. B. Blake, Dr. D. A. Haller, Boston.

### TUESDAY AFTERNOON.

Meeting of the Section of Surgery.
Salon, Copley-Plaza Hotel.
2.30 o'clock.

*Officers of the Section of Surgery.*
Dr. **Frederic J. Cotton**, Boston, *Chairman.*
Dr. **Albert Ehrenfried**, Boston, *Secretary.*

1. The Modern Treatment of Burns, with Special Reference to Ambrine.—Dr. E. H. Risley, Boston.

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* The men whose names are marked with an asterisk have been called away in the service of the country since the program was arranged.

Discussion by Dr. J. B. Blake, Boston; Dr. J. M. Birnie, Springfield.

2. Transplantation of the Head in Old Cases of Fracture of the Neck of the Femur. (Illustrated.) Dr. E. G. Brackett, Boston.
   Discussion by Dr. C. L. Scudder, Boston; * Dr. William Darrach, New York.
3. Spina Bifida and Allied Malformations, Based on a Study of 32 Personal Cases. (Illustrated.)—Dr. T. W. Harmer, Boston.
   Discussion by Dr. J. J. Thomas, Dr. J. S. Stone, Boston.
4. Report of Results of Radium Treatment at the Huntington Hospital, by the Cancer Commission of Harvard University.—Dr. R. B. Greenough, Boston.
5. Mesothorium and Combination Methods in the Treatment of Cancer.—Dr. F. D. Donoghue, Boston.
   Discussion of the Treatment of Cancer by Dr. Thomas Ordway, Albany, N. Y.; Dr. Edward Reynolds, Boston.
6. The Roentgen Diagnosis of the Pathological Gallbladder. (Illustrated.)—Dr. A. W. George, Dr. R. D. Leonard, Boston.
   Discussion by Dr. G. C. Smith, Dr. C. C. Carroll, Boston.

## TUESDAY AFTERNOON.

### MEETING OF THE SECTION OF TUBERCULOSIS.

BALLROOM, COPLEY-PLAZA HOTEL.
2.30 O'CLOCK.

*Officers of the Section of Tuberculosis:*
DR. WALTER G. PHIPPEN, Salem, *Chairman.*
DR. JOHN B. HAWES, 2D, Boston, *Secretary.*

SYMPOSIUM ON THE DIAGNOSIS OF TUBERCULOSIS.

1. Under What Conditions is the Diagnosis of Pulmonary Tuberculosis Without a Positive Sputum Justified?—Dr. David R. Lyman, New Haven, Connecticut State Tuberculosis Commission, Superintendent of the Gaylord Farm Sanatorium.
2. Under What Conditions is the Diagnosis of Pulmonary Tuberculosis in Children Justified?—Dr. H. D. Chadwick, Westfield, Superintendent of the Westfield State Sanatorium.
3. What Constitutes Reportable Tuberculosis?—Dr. Francis G. Curtis, Chestnut Hill, Chairman of the Board of Health of Newton.
4. Minimum Diagnostic Standards in the Diagnosis of Pulmonary Tuberculosis.—Dr. John B. Hawes, 2d, Boston.
   Discussion by Dr. W. Irving Clark, Worcester; Dr. Ralph B. Ober, Springfield; Dr. Arthur N. Broughton, Boston; Dr. William W. Walcott, Natick; Dr. Ralph E. Stone, Beverly; Dr. James H. Young, Newton; Dr. John F. O'Brien, Boston; Dr. Charles E. Prior, Malden; Dr. George H. Thompson, North Adams.

## TUESDAY AFTERNOON.

### MEETING OF THE SECTION OF HOSPITAL ADMINISTRATION.

STATE DINING ROOM, COPLEY-PLAZA HOTEL.
2.30 O'CLOCK.

*Officers of the Section of Hospital Administration:*
DR. HOMER GAGE, Worcester, *Chairman.*
DR. JOSEPH B. HOWLAND, Boston, *Secretary.*

1. The Hospital Follow-up System.—Dr. Channing C. Simmons, Boston.
2. Uniformity in Hospital Reports.—Dr. Ernest A. Codman, Boston.
3. The Standardization of Hospitals.—Mr. John G. Bowman, Director, American College of Surgeons, Chicago.
4. Efficiency Tests Applied to the Attending and House Physicians of the Cook County Hospital.—Dr. Joseph A. Capps, Chicago.

## TUESDAY EVENING.

### THE SHATTUCK LECTURE.

FOYER, COPLEY-PLAZA HOTEL.
8 O'CLOCK.

By * DR. WALTER B. CANNON, George Higginson Professor of Physiology, Harvard Medical School.

Subject: The Physiological Factors Concerned in Surgical Shock. (In the absence of Dr. Cannon the lecture will be read by Dr. David Cheever.)

After the lecture there will be a reception to the President by the Society, followed by music and refreshments.

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JUNE 13, 1917.

## WEDNESDAY MORNING.

### ONE HUNDRED AND THIRTY-SIXTH ANNIVERSARY.

FOYER, COPLEY-PLAZA HOTEL.
9.30 O'CLOCK.

*Business of the Annual Meeting.*

PROPOSED AMENDMENTS TO THE BY-LAWS THAT HAVE BEEN SUBMITTED TO THE COUNCIL IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER IX.

1. By the Board of Supervisors, October 4, 1916. To Chapter V.

Page 17, Section 1 (*Board of Supervisors*) line 7, to follow the word "board," this sentence: He shall call special meetings at the request of five supervisors.

Same page, same section, third paragraph (*Diplomas of colleges not on list*), add at end of paragraph, deleting the period, the following: by the district secretary before an applicant is permitted to take an examination.

Same page, same section, last paragraph (*Examinations; when held*) second line, delete "at 2.00 p.m."; also next line, change the word "second" to "first" in the two places where it occurs.

Page 18, Section 2 (*How applications are made*) first line, substitute the word "fellowship" for the word "examination."

Same line, after the word "apply," insert the following: on blanks furnished for the purpose. . .

Same section, end of second line, delete the semicolon and add the following: at least one week before the date of a given examination.

Same page, Section 3 (*Duties of district secretaries*), second line, to follow the word "censors," add the following; shall furnish applicants with blanks adopted by the board of supervisors; they. . .

2. By the Committee on Membership and Finance, February 7, 1917. To Chapter VI.

That the fourth paragraph of Chapter VI, Section 4, page 21, be amended so that it shall read:

He shall attend the meetings of the Committee on Membership and Finance, furnish the committee with such data on membership and finance as the committee may require, and shall make all investments and re-investments of the Society's funds subject to the approval of this committee.

The papers will be devoted to "Certain Aspects of the Hazards of Industry."

1. The Bearings of Industry on Medical Practice.—Dr. David L. Edsall, Boston.
2. The Activities of a Labor Department.—Mr. Edwin Mulready, Rockland, Commissioner of Labor, the Commonwealth of Massachusetts.
3. The Adjustment of Physical Defectives to Employment.—Dr. W. Irving Clark, Worcester.
4. The Industrial Clinic, Massachusetts General Hospital.—* Dr. Wade S. Wright, Boston.
5. The Establishment of a First-aid Hospital in Industry.—Dr. Herbert J. Cronin, Cambridge.

## WEDNESDAY NOON.

THE ANNUAL DISCOURSE WILL BE DELIVERED BY DR. PHILEMON E. TRUESDALE, FALL RIVER.

### WEDNESDAY AFTERNOON.

### Combined Meeting of the Sections of Medicine and Surgery.

Salon, Copley-Plaza Hotel.
2.30 o'clock.

*Chairmen:* **Dr. Frederic J. Cotton**, Boston; **Dr. Brace W. Paddock**, Pittsfield.

*Secretaries:* **Dr. Albert Ehrenfried**, Boston; * **Dr. James H. Means**, Boston.

1. Neurological Indications for and against Operation in Traumatic Injuries Affecting the Central Nervous System.—Dr. J. J. Thomas, Boston.
   Discussion by Dr. P. C. Knapp, Dr. J. T. Bottomley, Boston.
2. Indications for Operation in Skull Fractures.—Dr. E. H. Nichols, Boston.
   Discussion by Dr. W. E. Paul, * Dr. Harvey Cushing, Boston.
3. Temperature as a Valuable Guide to Operation in Skull Fracture.—Dr. J. W. Courtney, Boston.
4. Indications for Laminectomy in Fracture of the Spine with Cord Symptoms.—Dr. J. B. Hartwell, Boston.
   Discussion by Dr. I. H. Coriat, Dr. Samuel J. Mixter, Boston.
5. A Study of Fractures of the Base of the Skull at the Massachusetts General Hospital.—* Dr. W. J. Mixter, Boston.
   Discussion by * Dr. George Clymer, Dr. G. L. Walton, Boston.
6. A Brief Report of Cases of Fracture of the Skull and Spine, from the Fourth Surgical Service, Boston City Hospital.

### WEDNESDAY EVENING.

7 o'clock.

The **Annual Dinner** will be served in the **Ballroom** of the **Copley Plaza Hotel**, promptly at 7 o'clock. Dress suits not necessary.

Fellows desiring to sit together, in groups of not less than ten, may reserve tables seating ten by sending a postal to the Chairman of the Committee of Arrangements, stating the names of those for whom reservations are to be made. Such postals must be in the hands of the Chairman on or before June 6. No tables will be reserved for less than ten nor after June 6.

#### Dinner Tickets.

Tickets for the Annual Dinner, at one dollar apiece, may be obtained at the Bureau of Information during the two days of the meeting by those Fellows whose current dues are paid.

## Correspondence.

### HAVERHILL PHYSICIANS' WAR SERVICE ASSOCIATION.

Haverhill, Mass., May 23, 1917.

*Mr. Editor:—*

The physicians of Haverhill, organizing under the name of the "Haverhill Physicians' War Service Association," elected Dr. John F. Croston as president; Dr. Duncan Macdougall as vice-president; Dr. Francis W. Anthony, recording and corresponding secretary; Dr. George M. Atwood, treasurer; Dr. I. J. Clarke chairman, Dr. A. P. George and Dr. A. M. Hubbell as a medical service committee; Dr. Alice G. Symonds, chairman, Dr. Harry B. Perkins, Dr. Blanche Cooney as a publicity committee; Drs. Croston, Macdougall, Anthony, Atwood, Clarke, Symonds, Crittenden as executive committee.

The following resolutions have been signed by a majority of the physicians of the city:

"We, the undersigned physicians of Haverhill and vicinity, desirous of aiding in every way our country in the present war, hereby agree that, in the event that any physician in our midst is rendering service that obliges him to leave his practice, *we will care for that practice during his absence, place to his credit* ALL *fees collected,* and *turn back to him, upon his return, all families ordinarily employing him, to whom we have rendered professional service.*

"In the event of active service in war by the members of local military organizations we, the physicians of Haverhill and vicinity, agree to *treat without charge* the *dependents* of those so engaged who *have been in times of peace under our individual care.*"

Meetings have been held which have been addressed by physicians connected with the army and others. The organization was made in order that if services could be rendered to the state or country it might be done through organized channels.

Very truly yours,
**Francis W. Anthony**, *Corresponding Secretary.*

### APPOINTMENTS.

**Dr. William G. MacCallum** of Columbia University has accepted the chair of pathology and bacteriology at Johns Hopkins University.

**Dr. Adrian V. S. Lambert**, associate professor of surgery at Columbia University, will act as head of the department, taking the place of Dr. George E. Brewer, who has been called for foreign service.

### MARRIAGES.

The marriage of Miss Ida M. Buckley of Exeter, N. H., to Dr. Frank H. Cushman of Boston is announced. Dr. Cushman is a graduate of Harvard Dental School, and served for six months with the Harvard Surgical Unit in France.

### ADDENDUM.

Following are the legends for the illustrations of Dr. Hektoen's paper, "Recent Investigations on the Bacteriology of Acute Poliomyelitis," published in the Journal of May 17, 1917.

#### LEGENDS FOR ILLUSTRATIONS.

Fig. 1.—Diplococcus and smaller coccal forms in spinal cord of poliomyelitis patient. Material dates from Norwegian epidemic about 1906, and was obtained from Professor F. Harbitz in Christiania. Gram's stain. X1200.

Fig. 2.—Cocci, large and small, in smear of poliomyelitis brain (human) after preservation by Dr. Mather in glycerol for five months. Cultures still positive and pure. Gram's stain. X1200.

Fig. 3.—Spinal cord of Monkey No. 2. For details see text. Cellular infiltration and neurophagocytosis. X150.

Fig. 4.—Intervertebral ganglion, Monkey No. 2. For details see text. Small area of infiltration and destruction of nerve cells. X230.

Fig. 5.—Cellular infiltration of spinal pia of rabbit injected intracerebrally with 0.5 c.c. suspension of blood agar culture of a coccus from poliomyelitis in its fourteenth generation on blood agar. Flaccid paralysis developed in right hind and both front legs on seventh day. Chloroformed. Cultures of coccus obtained from brain, cord and spinal fluid, but not from joints or heart blood. X10.

Fig. 6.—From anterior horn of section illustrated in Fig. 5. Infiltration with mononuclear cells; satellitosis. X140.

Fig. 7.—Perivascular infiltration in choroid plexus of a rabbit, details about which are given under Fig. 5. X160.

Fig. 8.—From brain stem of rabbit injected intravenously with coccus from poliomyelitis in its seventh culture generation. No paralysis. Profound weakness 12 days later. Chloroformed. Cultures of coccus from brain and cord only. Invasion by cells, degeneration of nerve cells, satellitosis, extensive perivascular infiltration (Fig. 9). X250.

Fig. 9.—Perivascular infiltration. For details see under Fig. 8. X525.